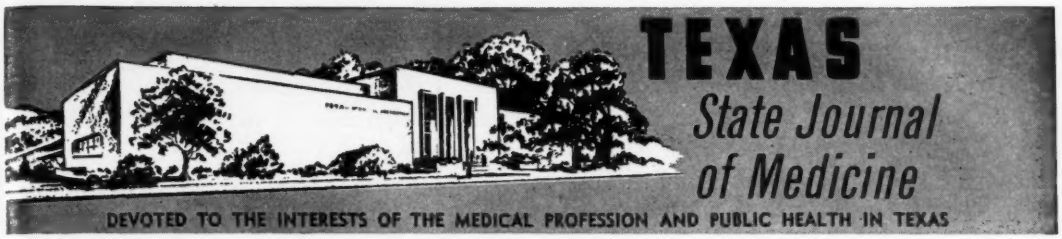

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'Expansion' Is the Word

In the decade 1950-1960, membership of the Texas Medical Association increased from 6,191 to 8,419. This net gain of 2,212 members—or 36 per cent—was reflected in a concomitant expansion of services and of activity within the various offices of Association headquarters in Austin.

A prime example is the Orientation Program, now offered three times a year by the Association. More than 1,600 physicians—approximately 20 per cent of the membership—have attended a program of this type since 1956, when the House of Delegates stipulated that it be a requirement for regular membership. In 1960 alone, 468 physicians attended the three sessions: 98 on January 16 in Austin, 202 on April 12 in Fort Worth (Annual Session), and 168 on September 17 in Austin.

The Memorial Library, during 1960, had its best year as judged by utilization of services. The 3,941 reference requests that were filled represented an increase of 23 per cent over the number processed during 1959. The 25,596 items circulated in 1960 included 15,757 reprints, 6,417 single journals, 1,018 bound journals, 1,260 books, and 1,144 photostats. The Library also honored requests for 1,177 film bookings, lent 404 tapes, and processed 112 bibliographies.

Reference requests of the Library have increased three and a half times during nine consecutive years—from 1,118 in 1952 to 3,941 in 1960.

As a part of the Association's efforts to convey its positive programs and activities to the public, an innovation made in recent months is significant. This is the provision of news releases to 600 Texas daily and weekly newspapers

on topics of lay interest. Taken from editorials and original articles in the TEXAS STATE JOURNAL OF MEDICINE, subjects of the news releases have included (1) opposition to the legalized distribution of narcotics to drug addicts, (2) advocacy of the use of medical examiners for the investigation of deaths, and (3) epidemiology in cancer control.

Annual Session activities have expanded enormously in recent years. For the 1961 Galveston Session, 30 guests have accepted invitations to participate, 4 of whom are from out of the country (England 2, Italy 1, and Canada 1). Seventeen organizations now share the expense of providing outstanding medical leaders for the Association's annual meetings. Because of such assistance, Association expenses for guest speakers are kept relatively low.

The technical exhibit at Galveston will be the largest in the Association's history. The spacious new Moody Center allows the sale of 126 exhibit booths; previously the highest number was 105 in Houston. To date, space for 115 booths has been sold.

Physicians continued to make good usage of the Physicians Placement Service last year. The 284 physicians who sought help included 104 Association members who needed associates. Interviews were held with 114 physicians, and 27 communities were personally surveyed. The Association is credited with 57 placements for the year, as compared with 46 for 1959 and 32 for 1958.

Members of the headquarters staff numbered a record high of 127 visits and speaking engagements during 1960 in all parts of the state. The 25-minute presentation, "The Best Medical Care for All Texans," was given to 93 civic clubs during this period. Illustrated with "flip cards," the address is concerned with such factors as (1) positive programs of the medical profession designed to provide the public with good medical care, (2) deficiencies of governmental medicine, and (3) the advantages of private, personal medical care.

The heightened tempo of activities at Association headquarters is evident in printing and mailing activities for the past year. More than 1,000,000 items were printed by the Association. A recently purchased, two-color Multilith press enabled much of the increased work load to be performed.

During 1960, each Association member received 45 pieces of mail. Forty-five other pieces of mail and literature were addressed to the membership for other groups: county medical societies, voluntary health associations, medical and specialty groups, and organizations offering postgraduate programs.

The total of 810,226 pieces of mail addressed for the year meant that 67,519 pieces were addressed each month. In 1960 the Association processed 260,141 pieces of mail through its postage meter, an increase of 10 per cent compared with the previous year.

Medical Legislation

Bill-wise, the Texas Legislature is a busy place. Indications are that the 1961 Session will not be any different from the previous regular session in 1959. Then, 1,563 bills were introduced, although only 518 of them were passed, and the governor vetoed 10 of these.

This year, more than 500 bills have been introduced already with more scheduled to come.

Perhaps surprisingly, a great number of the bills are of primary interest to physicians—that is, they concern health.

Among these:

Mental Health:

S.B. 115 would allow the fees for applications and licensing of private mental hospitals to be used by the State Department of Health for the expenses of administering the Mental Health Code of the state.

H.B. 162 would amend the Mental Health Code in regard to the 24-hour time limit presently provided for in obtaining a court order

in emergency hospitalization proceeding. This emergency admission procedure was included in our present code to eliminate the necessity for jail confinement, and substitute instead, hospitalization for the mentally ill under emergency conditions. However, this 24-hour limit is unrealistic when the emergency admission occurs on a Saturday, Sunday, or a legal holiday. Under this proposed bill, the 24-hour period allowed for obtaining the court order would begin at 9 a.m. of the first succeeding business day.

Physically Handicapped:

S.B. 25 would authorize the establishment of residential hospitals, under the Board for Texas State Hospitals and Special Schools, for severely physically handicapped persons, subject to availability of appropriation.

Drugs and Narcotics:

S.B. 43 revamps the present Food, Drug, and Cosmetic Act which has not been substantially amended since 1911. This will regulate the sale and manufacture of foods, drugs, devices, and cosmetics. (This bill was approved by the Executive Board of Texas Medical Association.)

S.B. 23 amends the Uniform Narcotic Drug Act by increasing the penalty from not less than 5 years to no more than life.

H.B. 93 redefines the term "narcotic drug," whereas it would not be necessary to name any specific narcotic drug in an indictment. Proof that a person is a habitual user of, addicted to, or under the influence of one or more narcotic drugs would be sufficient to support a conviction.

Air Pollution:

H.B. 34 would amend the present law relating to duties of the county health officer and add the duties of preventing and suppressing dangers, threats, or impairments to public health, including those through air and water pollution.

Radiation Control:

S.B. 68 and H.B. 296, identical bills, provide for the licensing of by-product, source and special nuclear materials by a State Radiation Control Agency, under the State Board of Health. (Texas Medical Association's Committee on Nuclear Medicine worked closely with this bill, which was approved by the Executive Board.)

Old Age & Needy Assistance:

S.B. 79 and H.B. 4, identical bills, are vendor medical care bills. Partially, they would provide enabling legislation for the Kerr-Mills Bill passed by the last session of Congress. If the bills pass, payments can be made directly to physicians, hospitals, or nursing homes. (These bills were approved by the Association.)

Contracting for Medical Care:

H.B. 245 would allow the Board for Texas State Hospitals and Special Schools to contract for medical care and treatment.

Medical Examiner System:

H.B. 254 would allow several counties to establish the office of Medical Examiner.

Nurses:

S.B. 166 and H.B. 340, identical bills, would amend the present Nurse Practice Act. In the present form, the Association, the Commission on Patient Care, and the Texas Hospital Association oppose the bills.

Objections noted by the two Associations are (1) the qualifications of the board state that members must be "a graduate of a college or university accredited by a nationally recognized agency with a baccalaureate or higher degree with a major in nursing. . . ." This provision automatically disqualifies approximately 93 per cent of the registered nurses in Texas from service on the board setting their professional standards. (2) Section 5 states that the educational secretary "shall have been engaged in professional nursing education for 5 of the 7 years immediately prior to appointment and shall have a master's degree or higher with a major in nursing education. These qualifications are fixed by law and extremely inflexible. Officials of the Associations believe that the qual-

ifications should be left to the judgment of the board to find and hire the best qualified person available. (3) Section 6, Definition of Professional Nursing, dangerously borders on the practice of medicine, according to advice from legal counsel. By deleting certain words in the definition and Section 6 (b) exceptions, this law could become "mandatory" and create serious difficulties for hospitals and others employing persons who may perform some of the functions of a professional nurse, even though they do not profess to be a registered nurse.

Physicians are urged to write their state legislators about the pitfalls of these bills. The Woman's Auxiliary and nursing personnel should be fully apprised of them also.

Rendering Emergency Care:

H.B. 100 provides that no person shall be held liable in civil damages who administers in good faith emergency care at the scene of an emergency for acts performed during the emergency, unless such acts are willfully or wantonly negligent.

Hypnosis:

H.B. 255 would prohibit the use of hypnosis or attempts to use hypnosis by persons other than physicians, dentists, and psychologists. It also defines the word "psychologist." It carries the penalty of a misdemeanor and a fine of not more than $100 or imprisonment not to exceed 30 days, or both.

These are the major health bills thus far submitted to the legislature but others are anticipated, such as the bill to license medical technologists, which the medical association has opposed.

Advances in the Control Of Non-Toxic Goiter

Since the advent of iodized salt, endemic goiter has become rare. However, a large number of goiters persist, both in areas of previous goiter endemicity and in non-endemic areas. These so-called sporadic goiters constitute a world-wide health problem, and are a major medical problem even in Texas, a non-endemic area. Many valuable papers concerning the prevention and treatment of sporadic goiter were presented at the Fourth International Goiter Conference in London on July 5, 1960, and at the First International Congress for Endocrinology in Copenhagen on July 19, 1960. Information gathered at these meetings is the basis for this editorial.

Simple goiter is compensatory hypertrophy of the thyroid. It is caused by increased secretion of the pituitary in an effort to maintain a normal supply of thyroxine. If the effort is sufficient, the individual will be euthyroid; if not, he is hypothyroid or a cretin. The goiter is initially diffuse, but with time the morphologic picture is affected by variations in iodine intake or utilization and colloid nodular goiter eventually develops.

The most important causative factors in sporadic goiter are:

1. *Interference with iodine utilization.* In some areas iodine is abundant in the soil but is poorly soluble and not available to plant or animal. Proper humus, moisture, and bacterial flora of the soil tend to influence its availability. The "Derbyshire Neck" of England results from the high calcium content of the soil and drinking water which reduces the utilization of iodine. Fluorine can also block iodine absorption.

Excessive excretion of iodine by the kidneys occurs normally at the menarche and during pregnancy and has been shown to cause goiter. Excessive salt intake also causes excessive excretion of iodine.

2. *Goitrogens.* Goitrogenic foods are principally members of the brassica or mustard family. Bacterial action in the intestinal tract converts harmless progoitren, which is the principal goitrogenic agent deriving from these plants, to goitren. Goitren acts by

blocking iodine utilization in the thyroid. Goitrogens may be eaten by the patient ("cabbage goiter") or by cows to be carried in milk ("milk goiter"). In the spring, children in Tasmania have goiter while cows are eating kale. Surprisingly, antigoitrogenic substances in some plants prevent the formation of "cabbage goiter." Some foods may cause goiter in indirect fashion; for example, experimental animals have goiter as a result of an excessive intake of fats or meats. Vitamin A deficiency in Burma is a cause of human goiter, and there is even a "peach goiter" and a goiter that results from ingestion of soybean milk. Last year publicity was given to contamination of cranberries with a goitrogenic insecticide. Numerous drugs such as thiocyanate, perchlorate, cobalt, para-aminosalicylic acid, resorcinol, sulfonamides, salicylates, and rubidium are all known to be goitrogenic. Water may become goitrogenic as a result of pollution with urochrome. A filtrable virus polluting the river water of India is a proved goitrogen.

3. *Familial inborn errors of metabolism.* These produce goiter by compensatory hyperplasia of the defective thyroid in an effort to supply adequate hormone. There are three principal types of enzyme defects:

Inability of the thyroid to bind iodine organically. This defect can be demonstrated by a simple clinical test with radioiodine, the thiocyanate dumping test. This is the most common inborn error; it is usually seen in mild familial goiters and in Pendred's syndrome.

Absence of the deiodinating enzyme which is demonstrated by significant loss of iodine in the urine.

Defects in thyroglobulin synthesis effecting production of a metabolically inert hormone, which enters the circulation causing a high serum protein iodine level but a low serum butanol extractable iodine content.

A fascinating phenomenon related to goiter is the familial inability to taste phenylthiourea (PTC), which is both a natural and a synthetic goitrogen (cranberry insecticide). The non-tasters are unable to destroy this goitrogen and therefore have a high incidence of goiter. Pendred's syndrome is an example of an inborn error characterized by familial goiter, deafness, mental deficiency, and, occasionally, cancer of the thyroid or cretinism. All of these patients are unable to taste PTC. Also, many cretins are PTC non-tasters. It is thought that these patients suffer virtual embryonic thyroidectomy by exposure in utero to the substance.

4. *Chronic lymphocytic thyroiditis.* This seems to result from a hyperimmune reaction which has a familial tendency. The thyroid makes an effort to compensate for defective thyroid synthesis by goiter formation.

5. *Neurogenic factors.* "Fright thyrotoxicosis" develops in captured wild rabbits. Excision of the cervical sympathetic nervous system and exposure to cold both act through the hypothalamus to cause increased output of thyrotropic hormone. Excitation of the central nervous system directly or through drugs accelerates "cabbage goiter." Injection of rubber particles in one lobe of the thyroid prevents uptake of radioiodine in the opposite lobe as a result of nervous reflexes. Cortisone, estrogen, and testosterone act via the hypothalamus to suppress thyroid function.

Two drugs are important in treatment of patients with goiter and in prevention of the condition. Iodine is of proved value in iodine-deficient areas. Also, it is used to overcome the effects of goitrogens in foods and drugs, poor absorption of iodine from the intestinal tract, and excessive excretion of iodine in the urine. Thyroid hormone therapy is useful to counteract certain antithyroid drugs, to control inborn errors or familial goiter, and to control the goiter of chronic thyroiditis. Even nodular goiters which appear as a result of many years of thyroidal dysfunction have resolved during pro-

longed administration of thyroid hormone. Familial defects in thyroid synthesis have also disappeared after a year of treatment with thyroid extract, indicating that the thyroid sometimes may be able to outgrow or recover from such defects. The same apparent cure has been observed in cases of chronic thyroiditis.

The routine administration of iodine or thyroid extract to all patients with goiter may save many from surgical procedures, but it will certainly delay the diagnosis of existing carcinoma in a few others. Statistics prove the high incidence of carcinoma of the thyroid in nodular goiter, especially in the case of solitary nodules in adult males or in children. Therefore, the utmost caution must be taken during observation of patients who are receiving medical therapy for goiter. Surgical intervention should be prompt if solitary nodules do not resolve after a few months of treatment; if evidence suggests rapid growth, extension, or metastasis of a carcinoma; or if there is a huge goiter.

The strong familial tendency for goiter makes it worthwhile to examine relatives of patients with goiter in order to discover other cases of goiter and to start treatment early.

—MAVIS P. KELSEY, M.D.
Houston, Texas.

"A Distorted Program"

American Medicine's story—of high objectives and notable accomplishments in making the best medical care available to everybody—must be told to the public in a much more effective way by physicians and by their patients and other appreciative friends! While the doctor has been busy with stethoscope, scalpel, and health-restoring medicines, the social do-gooders, welfare staters, and vote-seeking politicians have carried on an ever-increasing campaign of misrepresentation and deceptive promises through multiple channels of communication—television, radio, magazines, and newspapers. Physicians have had fair treatment by editorial writers, by and large, but other communications media have not exhibited the same American principles of fair play.

A climax was reached on the night of February 2, in the CBS Reports television show entitled "The Business of Health: Medicine, Money and Politics." Months before, the Public Relations Department of the American Medical Association, in good faith, had accepted an invitation from CBS to participate in the program. At no time could AMA officials get information on the script, and they were given no opportunity to preview the show. President-elect Leonard Larson spent more than 4 hours taping questions and answers for the program; all but 2 minutes of that sincere effort to give the real truth about America's position on medical care lies on some CBS cutting room floor. President E. V. Askey permitted CBS to tape a talk he made before a Los Angeles service club without being informed of the intended use of the tape. The CBS program of February 2 showed him in less than 2 minutes of introductory remarks to the club.

Gross errors in quoting alleged medical care costs were made blandly by the commentator of the program, and the entire production had misrepresentations, bias, and distortions obviously slanted in favor of the proponents of socialized medicine.

Not only hundreds of physicians but also large numbers of fair minded citizens protested to CBS about the travesty. AMA Trustees, in session in Chicago at the time, swung into vigorous action. A strongly worded protest to CBS was given to the press, expressing amazement that "a major national television network, with its grave responsibility to safeguard the truth in examining the great issues of the day, would permit such a distorted program to be presented in the guise of objective reporting. We believe that CBS has performed an historic disservice to the people of this country."

The Trustees also activated plans whereby all physicians will be stimulated not only to continue their rendering of skillful, personal

medical care, but also to function more effectively as citizens in stemming the tide toward socialism and maintaining the bulwark of private enterprise against federal governmental encroachment and control.

There will be no more participation by AMA in television or radio shows that can be cleverly manipulated by "pros." On the local level, physicians and their friends will be encouraged to utilize every opportunity to tell the true story of Medicine. The AMA will furnish suggestions and material for use by individuals and by county and state medical societies. Plans are being made for proper use of display advertising in newspapers and magazines of wide circulation, and of radio and television time. Particularly will individual county medical societies be encouraged to sponsor public relations use of television, radio, and newspapers in their own areas.

"Public relations" of Medicine begin and are determined mostly in the office and in the daily life of the individual physician.

There is to emerge soon a nation-wide Physician Citizens' movement, to function entirely outside American medicine. Its purpose will be to galvanize into effective action individual doctors working as ordinary citizens.

The time for action is NOW. Every Texas physician should think as never before and should inform himself of the significance of present trends; then, along with other doctors, he should spend the time, effort, and even money to see that the public gets the correct image of American Medicine.

Medicine is a symbol of resistance to socialism. Your patients are depending on you to do your part, effectively, in preserving the privilege of optimal health care under the system of private medicine.

—MILFORD O. ROUSE, M.D., Dallas, Texas.

Tumor Seminar

In this issue on page 63 appears the 1959 Tumor Seminar of the San Antonio Society of Pathologists. Dr. Edward A. Gall of Cincinnati conducted the seminar, during which 17 cases were presented.

Dr. A. M. Richmond, president of the Society, opened the meeting. He introduced Major General William E. Shambora, commanding general of Brooke Army Medical Center, and welcomed members of the Society and their visitors. Dr. Richmond commented that the Seminar was the oldest continuous one in the United States.

The seminar receives the support of the Texas Division of the American Cancer Society and the South Central Regional Committee of the College of American Pathologists. The editors of the TEXAS STATE JOURNAL OF MEDICINE are pleased to publish the proceedings of another outstanding tumor seminar.

Life Expectancy Increases 20 Years Since 1900

The average infant born in this country can expect to live almost half again as long as one born in 1900, Health Information Foundation reported recently in its monthly statistical bulletin, *Progress in Health Services.*

A baby born in 1900, the foundation reported, could expect to live 47.3 years, whereas one born last year had a life expectancy at that time of 69.7 years—the highest ever recorded in this country for the total population.

Although both males and females have benefited from increasing life expectancy in this century, greater gains have been made by females. Thus, while life expectancy for males rose from 46.3 years in 1900 to 66.4 in 1958 (a gain of 20.1 years), the comparable rise for females was from 48.3 to 72.7 (a gain of 24.4 years).

Pro / Con

A column for readers' assents, dissents, and comments, selected monthly by the official advisory committee of the Texas State Journal of Medicine

Industrial Physician Questions Usage Of "Insect" Designation

Dr. R. E. Flake, who is affiliated with the Industrial Health and Medicine department of the Texas Division of Dow Chemical Company, Freeport, recently wrote a letter raising certain questions in regard to the article entitled "Management and Treatment of Allergy to Stinging Insects" by Drs. Richard L. Etter, Warren J. Raymer, and Richard H. Jackson. This paper appeared in the December, 1960, issue of the TEXAS STATE JOURNAL OF MEDICINE.

Dr. Flake's inquiry and Dr. Etter's reply, both somewhat shortened, appear below:

"I couldn't let certain items go by without comment.

"The authors gave a list of 'more important offending insects' which includes the following arthropods that are not insects: chigger, mite, scabies (Sarcoptes scabei), and water flea. The chigger (in fact, all mites) and Sarcoptes scabeie are arachnids belonging to the order acarina (tick and mites). The water flea is a crustacean. By 'locus' I assume is meant locust.

"Again on page 918 is a list of 'insects' which includes salt water shrimp (a crustacean), tick (an arachnid of the order acarina), and sowbug (a crustacean).

"Im sure the authors meant to use the word arthropods rather than insects."

R. E. FLAKE, M.D.

"Dear Doctor Flake:

"You are entirely correct. I have only one 'face saving' excuse; that is, the comment on locust. The word 'locus' is either a typographical error or I failed to pick it up on the galley proof.

"I would like, however, to call to your attention that the Department of Health, Education, and Welfare of the United States Public Health Service and the Bureau of State Services in their vital statistics list the spiders and other arachnids as insects. I have commented on this every time I have talked about insects for the past ten years, but no one seems to give a 'rip' and it is immediately passed off. Also, the State of Texas Department of Health lists the accidents attributable to bites and stings of venomous insects and in this list is included the arachnids. For this reason it makes things very confusing when using the vital statistics list and comparing it with a true zoological list.

"When this paper was presented in Fort Worth, the comment came up on this subject and I explained that I kept the arachnids in the insect listing because of the way fatalities are listed on our State and National statistics lists.

"As far as the crustaceans are concerned, none are listed on the vital statistics list; but I have been unable to find, either by personal com-

munication or literature, any deaths among those mentioned attributable to them. The salt water shrimp that I mentioned is considered by all laymen an insect as it is almost microscopic in size and probably makes up much of the plankton along the ocean shores. It has been reported to produce asthma in an occasional, allergic ocean swimmer, and it produces strong scratch reactions in patients sensitive to the eatable crustacean.

"The sowbug is a small land crustacean which is abundant along the Pacific coast, and there are a few along the Gulf of Mexico. A scratch test on a patient who is positive to the land crustacean has not been fully studied, but I suspect that there is a strong correlation between the shrimp, crab, and lobster sensitive patient with this crustacean.

"In the future I will either explain why certain of the arachnids and crustaceans are included in this list, or make an extra table as there is no excuse for not being scientific."

RICHARD L. ETTER, M.D.,
Houston, Texas.

TOO MUCH FOOD — *Americans Have Been Warned*

Dr. Ancel Keys, University of Minnesota physiologist who directs a $200,000 a year experiment on diet, repeats two warnings Americans continuously are hearing, but according to statistics, not abiding. In a recent article in *Time* Magazine citing Dr. Keys, Americans were warned of the dangers of overeating. *(Recently the United States Department of Agriculture reported that we eat 1,488 pounds of food per year, and the Metropolitan Insurance Company estimated that 48 million Americans are overweight.)*

Time listed Dr. Keys' two main messages:

"Americans eat too much. The typical U. S. daily menu contains 3,000 calories, should contain 2,300. (Half the world's population has trouble getting the 1,600 calories a day necessary to sustain life.) Extra weight increases the risk of cancer, diabetes, artery disease, and heart attack.

"Americans eat too much fat. With meat, milk, butter, and ice cream, the calorie-heavy U. S. diet is 40 per cent fat, and most of that is saturated fat—the insidious kind that increases blood cholesterol, damages arteries, and leads to coronary disease."

Dr. Keys, *Time* says, recommends less fat meat, fewer eggs and dairy products, more fish, chicken, calves liver, Canadian bacon, Italian food, Chinese food, supplemented by fresh fruits, vegetables, and casseroles.

"People should know the facts," says Dr. Keys. "Then if they want to eat themselves to death, let them."

Our Human Relations

Although many patients have high regard for their physicians, certain surveys indicate that others feel the doctor is too busy to discuss their problems.

Strangers have complained to me, "I went to see my doctor but he was so rushed that I hated to tell him about . . . perhaps you can answer a few questions that bother me?"

Some physicians could profit by the example of the lawyer referred to in a recent editorial of the AMA News. To his client's comment, "I know you are a very busy man . . .," the attorney replied, "Nothing is more important to me at the present time than your business. You have all the time there is."

We would save time, serve our patients more satisfactorily, and be more of a credit to our profession by putting more humanics into our practices. Dr. Leonora Neuffer Belger, a professor of chemistry in Hawaii, has said, "But science alone cannot save the world. There must be truth, honor and humaneness at work every day. And only the individual himself can meet it."

Each patient has the right to expect the personal care that only his physician can give. His time is as valuable to him as is the doctor's, and wasted time can destroy more of his well being than all of the "shots and pills" available can correct. Medicines and good patient care do not all come from the pharmacy.

Physicians need to devote a greater effort and more careful study to better personal care of the patient and his family. Just because a patient does not understand all medical terminology doesn't mean that he is incapable of understanding, in layman's language, the "cause and effect" of the case in question.

The doctor who takes the time to talk with the patient creates untold goodwill for the medical profession.

May Owen

ORIGINAL ARTICLES

Proceedings of the sixteenth annual tumor seminar presented by the San Antonio Society of Pathologists at Brooke Army Medical Center, Fort Sam Houston, on October 10, 1959. Conductor was Dr. Edward A. Gall, Cincinnati.

A Tumor Seminar

Case 1 (Malignant Lymphoma)

Diagnosis.—Malignant lymphoma, histiocytic type (reticulum cell sarcoma), stomach.

Contributor.—Dr. D. R. Snyder, Brooke Army Hospital, Fort Sam Houston.

History.—A 75 year old man with sudden onset of bleeding from the upper part of the gastrointestinal tract had an emergency gastrectomy. The stomach measured 12 cm. along the lesser and 15 cm. along the greater curvature. On the posterior wall was an irregular, hard lesion 5 cm. in diameter. The normal rugal pattern was absent over the mass. A central ulceration with elevated rolled edges measured 1.5 cm. The surgical line of excision went through one edge of the mass.

DR. GALL: This first view of the stomach shows a cellular mucosal ulceration without the qualities of peptic ulcer. The erosion penetrates deeply into a heavy infiltrating cellular process with a non-organoid, formless pattern (Fig. 1a).

The next slide is a view of slightly higher power. The infiltrating cells have separated the gastric mucosal epithelium and have displaced the submucosal and muscular tissues. These cells are not epithelial and have no recognizable structural pattern. They enter the muscularis and penetrate in a less dense fashion the depth of the stomach wall. At this power they appear to be cells of lymphoid origin. At still higher magnification, they have relatively hyperchromatic, irregular nuclei and mitotic figures in varied abundance. They have pushed aside the stroma, but have neither replaced it nor provoked reactive desmoplasia (Fig. 1b). The cells have an abundant cytoplasm, which in some instances actually proves to be phagocytic.

Submitted diagnoses.—Reticulum cell sarcoma, 38 per cent;* Hodgkin's disease, 32 per cent; malignant lymphoma, 14 per cent; lymphosarcoma, 10 per cent; leiomyosarcoma, 2 per cent; adenocarcinoma, grade IV, 2 per cent; eosinophilic granuloma, 2 per cent.

Dr. Edward A. Gall is professor of pathology at the College of Medicine of the University of Cincinnati, Director of Laboratories at Cincinnati General Hospital, and Editor-in-Chief of the *American Journal of Pathology*.

The majority considered this a form of malignant lymphoma, an opinion with which I agree. I am a little doubtful as to the basis for the diagnoses of leiomyosarcoma or adenocarcinoma. "Eosinophilic granuloma" has some reasonability in view of the fact that this had the appearance, at least in part, of an inflammatory lesion. I believe, however, that the nature of the infiltrate and the setting aside of the normal structure has more of the character of neoplasm. My diagnosis is malignant lymphoma of the histiocytic type. For those of you who adhere to tra-

**A total of 148 physicians attended the Seminar, of whom 49 submitted diagnoses.*

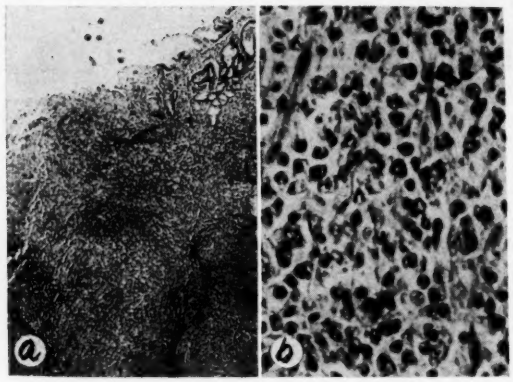

Fig. 1a. Case 1. (Reticulum cell sarcoma, stomach). Gastric epithelium adjacent to an ulcer is replaced by neoplastic elements without organoid pattern (x 15).

b. Case 1. Neoplastic histiocytes are unaccompanied by desmoplasia. Nuclei, though irregular in configuration, are relatively uniform in size (x 300).

ditional nomenclature, I would call it a "reticulum cell sarcoma."

I would like to show you a few examples of lesions of this nature. These lesions in the stomach may be diffuse in distribution, producing no mass but simply an exaggeration of the rugal pattern. Occasionally they protrude a little more in some areas than in others, but there may be little ulceration. In other instances the diffuse lesion is associated with broad ulceration, which in transection is found to be a deeply penetrating neoplasm mushrooming in the depth of the gastric wall. In another example of malignant lymphoma of the stomach, the ulceration shows extensive infiltration of the mucosal folds.

Occasionally the lesions are not diffuse, but are discrete with multiple button- or chip-like excrescences, some with ulceration. Occasionally the diffuse lesion is interrupted by multiple minute papillations, at the apex of each of which is an umbilicated ulceration.

This slide demonstrates the frequency with which alimentary tract involvement is seen in malignant lymphoma of the various types (Table 1).[23] Hodgkin's sarcoma, histiocytic lymphoma, and stem-cell lymphoma—in other words, the more malignant forms of malignant lymphoma—are more likely to affect the alimentary tract than are the differentiated forms. Visceral involvement is rare in follicular lymphoma. This is of importance not only with respect to the incidence with which these complications may be anticipated, but more particularly with respect to prognostic implications.

TABLE 1.—*Malignant Lymphoma (545 Cases)*[23] *Incidence of Lesions in Stomach and Intestine.*

Type	No. of cases	%
Stem cell lymphoma	42	8
Histiocytic lymphoma	64	12
Lymphoblastic lymphoma	76	14
Lymphocytic lymphoma	118	21
Hodgkin's lymphoma	174	32
Hodgkin's sarcoma	33	6
Follicular lymphoma	38	7

Malignant lymphoma appears in two forms in the alimentary tract. One is an isolated, apparently primary lesion without evidence of the disorder elsewhere. The more common form is that in which the alimentary lesion is a component of a disseminated or systemic process. In the latter instance the alimentary tract is affected only incidentally along with the other organs of the body. This has considerable bearing on what I think should be the rationale of therapy. In the instance in which the stomach is affected as part of a systemic and disseminated process, the disease runs its natural, usually rapid course. In contrast, if the stomach is the only region of involvement and by careful clinical and radiologic survey no other site is found, the lesion should be removed surgically and radically, as though it were an epithelial neoplasm.

This slide represents a survey of experience in this connection in 1943 (Table 2).[16] More recent experience has not significantly altered my opinions.

TABLE 2.—*Surgical Therapy of Localized Lymphoma.*[16]

Type	No. of cases	Survival (median) years: Roentgen treatment	Survival (median) years: Surgical treatment
Stem cell	9	1.1	5.0
Lymphoblastic	5	0.6	0.2
Lymphocytic	9	2.4	5.5
Histiocytic	11	1.1	4.9
Hodgkin's	9	3.2	5.4
Hodgkin's sarcoma	2	0.9	0.2
Follicular	3	5.0	7.9
Average duration (48 cases) = 6.9 yr.			

The median survival period from the initial symptom in ordinary cases of malignant lymphoma of systemic nature with conventional treatment is about 3 years. This is general experience the world over, whether treatment is by radiation, chemotherapy, or both. Conversely, among 48 cases reported in 1943 in which radical surgical therapy was utilized for localized lymphoma, survival time was more than 6 years. I have observed many similar cases, and others have attested to the efficacy of surgical treatment in cases of this nature.[7, 45] Many patients survive for years, and some ultimately die of unrelated disorders without having recurrence of lymphoma. I was startled at the seminar of the American Society of Clinical Pathologists a few weeks ago to hear Ben Castleman talk about "cures" of lymphoma. If a product of a conservative town like Boston can use such a term, I suppose I can, too, even though hesitantly.

Two other points justify comment. Because prognosis in malignant lymphoma of the stomach (in the absence of disseminated lesions) is often much better than that of malignant lymphoma appearing elsewhere, certain authorities have maintained that this is not actually lymphoma but a pseudolymphoma. Dr. Elson Helwig of the Armed Forces Institute of Pathology, for example, has suggested that these are peculiar inflammatory lesions, which in many instances may be distinguishable from lymphoma. In the present instance, however, I am certain that this is not an inflammatory lesion. It has all the earmarks of neoplasm.

The other point is a practical one, with everyday implications in the operating room. A surgeon operating upon a stomach of this sort and finding enlarged lymph nodes may, on occasion, remove the nodes for biopsy rather than disturb the large viscus which appears unresectable. It is curious, however, that in malignant lymphoma of the alimentary tract, the frequency of regional lymph node involvement is 50 per cent or less. This is the case despite the fact that the gastric or intestinal lesion may be advanced and the lymph nodes extremely enlarged. Even though seemingly lymphomatous on gross examination, many of these nodes exhibit only reactive changes. Examination of the lymph node is a poor means of establishing the diagnosis in malignant lymphoma of the alimentary tract. This is surprising, considering that the lesion is essentially of lymphoid origin.

Case 2 (Eosinophilic Gastritis)

Diagnosis.—Eosinophilic gastritis, stomach.
Contributor.—Dr. Gall.
History.—A 55 year old white woman had had cramping epigastric pain at intervals of several months for from 10 to 15 years and a long history of hay fever. Attacks of epigastric pain were accompanied by nausea, but there was no emesis, and the episodes were unrelated to meals. Roentgen study of the gastrointestinal tract was within normal limits, but a gallbladder series demonstrated the presence of calculi. At operation for cholecystectomy, the proximal jejunum was dilated. The prepyloric region of the stomach and a 4 inch segment of jejunum about 15 inches from the ligament of Treitz appeared yellowish-brown, thickened, and scarred. Subtotal gastrectomy was performed. The segment of jejunum was not resected, gastroenterostomy being accomplished distal to it.

DR. GALL: The fact that the surgeon did not remove some of the abnormal tissue lets us see what this lesion might do when left *in situ*. The first slide, a low-power view of the specimen, shows an intact mucosa with a moderate degree of infiltrate in the submucosa, but a more intense process deeper in the wall of the stomach (Fig. 2a). At higher magnification there is edema of the submucosa and extensive infiltration by granular leukocytes, which prove to be mature eosinophils. In the gastric musculature the cellular infiltrate is heavy, penetrating to considerable depth, and separating muscle fibers without destroying them. The condensation of eosinophilic leukocytes is pronounced; most of the cells are mature although there are some with myelocyte-like nuclei (Fig. 2b). Another high power view shows the characteristic arrangement and the infiltration of eosinophils into the serosa. Part of the alteration of the serosa is the result of drying, but there is also fibrin deposit. This and the infiltrating eosinophils obviously caused the roughening and brownish discoloration noted by the surgeon.

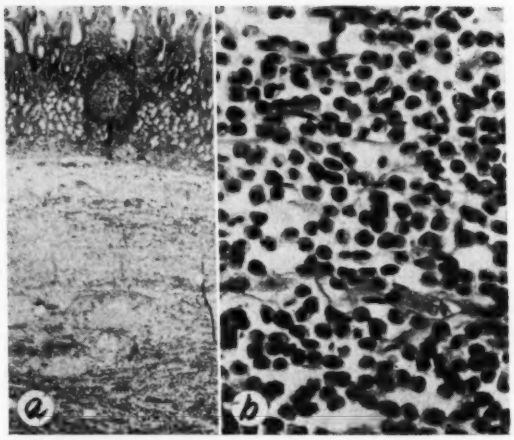

Fig. 2a. Case 2. (Eosinophilic gastritis, stomach). Mucosa is intact and unremarkable. Submucosa is edematous and exhibits a cellular infiltrate which increases in intensity as the muscularis is approached (x 17).

b. Case 2. Muscularis contains large numbers of eosinophils unassociated with evidences of necrosis or vasculitis (x 350).

Submitted diagnoses.—Eosinophilic granuloma, 52 per cent; eosinophilic gastritis, 21 per cent; allergic gastroenteritis, 21 per cent; regional enteritis, 4 per cent; granulocytic leukemia, 2 per cent.

DR. GALL: The diagnostic terms applied were concerned with the type of cell present. Ninety-eight per cent considered the lesion inflammatory, an opinion to which I, too, ascribe. The diagnosis of eosinophilic granuloma prevailed among the majority, but I could see no granulomas. I think, therefore, that this term, which is loosely used at best, has no basis for usage here. Eosinophilic gastritis is the diagnosis I would render, whatever its meaning. The lesion is probably of allergic nature, but there is nothing in the histologic examination to justify the diagnosis except for the eosinophils. My presumption that the lesion is allergic stems partly from the character of the exudate and partly from the fact that the patient had had hay fever for many years.

The stomach is affected in some cases of regional enteritis, and the lesion in this condition is non-

specific. I have not seen an instance of regional enteritis in which the number of eosinophils in the exudate approached the preponderance shown in this case. I would consider the diagnosis of granulocytic leukemia one of frustration. The pattern of the lesion in the present case is inflammatory. There is no nodule formation. The mucosa is intact, and the patient did not have leukemia in the first place.

The operation on this patient was done in 1950. Last week her surgeon advised me that she has been well with no recurrence of symptoms for 9 years. She continues to have hay fever, however.

There is little in the literature concerning eosinophilic gastritis, and most of it is descriptive. I have seen 2 other such lesions in the small intestine. One specimen was a resected segment of bowel, the other a biopsy fragment. One patient had a history of asthma. The biopsy specimen was obtained from the other patient who had a sprue-like syndrome but no hay fever. Whether these are coincidences or significant concomitances I don't know.

In passing, there is another common lesion, the eosinophil infiltration that is seen in the appendix in transitory attacks of appendicitis. To this lesion various names have been given. Most pathologists consider the process to be resolving, a healing appendicitis. Whether that is a justifiable assumption, I don't know.

DR. R. A. WELSH, New Orleans: Was a study of this tissue made for Charcot-Leyden crystals?

DR. GALL: No.

DR. J. P. FERGUSON, Houston: Do you consider this the same condition described by M. J. G. Lynch and others (Sudbury, Ontario) as "hypertrophy of the pylorus with massive eosinophilic infiltration," in which the possibility of a neurohumoral mechanism was mentioned in addition to the allergic background? This paper appeared in Gastroenterology, vol. 31, page 571, 1956.

DR. GALL: I read that paper, and I cannot remember the details. It was my impression at that time that a lesion similar to the present one was being described.

Case 3 (Pseudomyxoma Peritonei)

Diagnosis.—Pseudomyxoma peritonei (metastatic colloid carcinoma), peritoneum.

Contributor.—Dr. Gall.

History.—A 66 year old white woman had had radical mastectomy for scirrhous adenocarcinoma of the left breast with lymph node metastasis 4 years earlier. Postoperative radiation was administered. Two years later after an automobile accident, she was found to have an umbilical hernia, and pelvic examination revealed "uterine fibroids." The abdomen enlarged gradually during the next 2 years; the umbilical hernia had a bluish hue. Physical examination showed the breast scar and axilla to be well healed and without evidence of recurrence. The abdomen was distended; a large umbilical hernia was bluish purple and nontender. A fluid wave was elicited and a large, irregular pelvic mass was palpated on rectal examination.

Abdominal exploration yielded more than 4,000 cc. of yellow, jelly-like, viscid fluid. The peritoneal cavity was studded with small, nodular implants, which appeared also on the surface of the liver. A large, indurated omental mass extended from the lower pole of the spleen to the dome of the uterus and the ileocecal region. There was an adherent enlarged, sausage-shaped appendix 13 by 3 cm. Both the mass and the appendix were removed. The latter was distended by mucoid material. Its mucosa was flattened, and the fibrous and focally calcified wall measured 1 mm.

DR. GALL: The information relating to the breast lesion was not available at the time the surgical specimen was submitted. The section that you received was unimpressive on histologic study. There was edematous fat and fibrous tissue and large pools of mucin, in some of which floated small islands of epithelium (Fig. 3a). With closer scrutiny, much of the mucoid material had a precipitated appearance and was devoid of epithelium. Occasionally there was seen an island of epithelium in which appeared a complete acinus or simply a row of epithelial cells, many of goblet type (Fig. 3b). The mucoid substance was obviously a product of these cells. The omental specimen was a dense mass of viscid material, fat and fibrous tissue, and small nodular excrescences suggestive of neoplastic implantation.

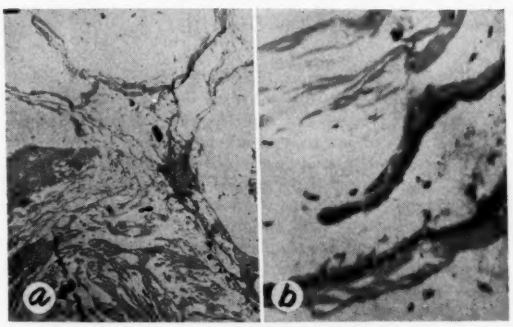

Fig. 3a. Case 3. ("Pseudomyxoma peritonei," metastatic colloid carcinoma). Omentum is characterized by large pools of mucin in a few of which may be seen small collections of epithelial cells (x 15).

b. Case 3. An incomplete acinus composed of mucus-secreting epithelium lies adjacent to a large colloid deposit (x 300).

Submitted diagnoses.—Pseudomyxoma peritonei, 56 per cent; mucinous adenocarcinoma of the appendix, 36 per cent; metastatic mucinous adenocarcinoma, 4 per cent; myxoma peritonei, ovary, 2 per

cent; colloid carcinoma, metastatic from breast, 2 per cent.

DR. GALL: The last diagnosis is correct, because sections of the so-called "scirrhous carcinoma" of the breast were secured, and proved to be a "colloid carcinoma." Why it was termed "scirrhous" I don't know. I believe, however, that the proper pathologic diagnosis is "pseudomyxoma peritonei." This is essentially a descriptive gross term, whereas metastatic colloid carcinoma or mucinous cancer is a histologic expression which does not indicate the lesion as it appears *in situ*. The phrase "pseudomyxoma peritonei" presupposes no special kind of substance in the peritoneum; it is simply descriptive of the gross appearance.[30]

The next slide is an example of this curious disorder as viewed by the probing surgeon. It is truly a "jelly belly," the loops of intestine and the omentum lying within a mass of coagulated gelatin. In this particular instance relatively few implants were visible grossly. This close-up view of a segment of intestine shows nodular deposits. This particular case was an example of pseudomyxoma peritonei associated with a pseudomucinous cyst of the ovary. The microscopic appearance of the breast lesion which had been removed 4 years earlier in the present case was obviously colloid carcinoma.

Mucocele of the appendix is a frequent concomitant of pseudomyxoma peritonei. It may be the sole visceral lesion associated with it, or it may accompany a pseudomucinous cyst of the ovary or a colloid carcinoma of the colon.

This interesting looking lesion represents a rare variant of mucocele of the appendix. The patient had carcinoma of the transverse colon, two lipomas of the cecum, papillary fibroma of the ovary, and a great, bulbous appendix. When it was opened, the distended appendix was filled with a large number of gelatinous spherical bodies resembling fish eggs. This is a close-up view of the translucent glomoid masses. Despite the unusual gross picture of myxoglobulosis appendices, the histologic appearance is unimpressive—just a cluster of blobs of mucin lying free in the appendiceal lumen.[37] The wall of the appendix showed chronic inflammation and fibrosis. The mucosa was profoundly flattened and atrophic.

The problem of distinguishing true mucin from false mucin in a lesion of this nature is not clinically important. The term "pseudomyxoma peritonei" is descriptive and does not require that the substance be mucin, pseudomucin, or any other particular substance. Efforts were made in this instance to identify the jelly; it was periodic acid-Schiff (PAS) positive and was precipitated with acetic acid. Thus, in this case it was true mucin insofar as the various tests used were concerned.

WRITTEN QUESTION: Is the ovary the commonest source of pseudomyxoma peritonei?

DR. GALL: I find that difficult to answer because I have seen only a few cases; however, most of them have accompanied ovarian tumors. In general, the ovary probably is the most common primary site. Pseudomucinous cyst of the ovary attains a large size in view of its slow growth; it is often adherent and may be disrupted during removal. Rupture in this fashion is a common mechanism for peritoneal dissemination.[36]

WRITTEN QUESTION: Have you seen peritoneal pseudomyxoma associated with both appendiceal "mucocele" and bilateral pseudomucinous cystadenomas of the ovary? What would be your interpretation? Isn't an appendiceal "mucocele" actually a mucin-producing adenocarcinoma?

DR. GALL: The latter represents a matter of opinion. The coincidence of mucocele of the appendix and pseudomucinous cyst of the ovary, of course, is common.[9] Many pathologists have attempted to explain it. Some have believed that the circumstance represents a congenital anomaly affecting both the alimentary tract and the ovary, and that the ovarian component is in essence a teratoma, a hamartomatous overgrowth of intestinal epithelium, or metaplasia in germinal epithelium. Others have considered that one was actually a malignant neoplasm with metastasis to the other—carcinoma of the ovary with metastasis to the appendix, or vice versa. I don't have an explanation but I would re-emphasize the common coincidence of the two conditions. According to many, resection of the ovarian lesion, in the instance of pseudomyxoma peritonei associated with pseudomucinous cyst of the ovary, may be followed by regression of the pseudomyxoma. This phenomenon has been cited repeatedly. In the present patient, there was still a large abdomen and purplish discoloration of the operative scars 5 months after operation. The lesion had not receded despite the administration of roentgen treatment.

I am not inclined to consider mucocele of the appendix a colloid carcinoma. This does not imply that colloid carcinomas may not occur in the appendix. They do, but are rare.

WRITTEN QUESTION: Please comment on the use of radioactive gold in the management of pseudomyxoma peritonei.

DR. GALL: I can't comment cogently on this subject. If the lesion, as in the present case, is actually a carcinoma, if there are neoplastic implants of the type seen, and if the lesion did not resolve with the removal of the organ containing the primary tumor, I can conceive that there would be good reason to introduce radioactive gold. I would be a little worried about its utilization for fear that the gold might not flow freely and thus be pooled, with detrimental effects in one portion of the peritoneal cavity.

Case 4 (Cirrhosis of Liver)

Diagnosis.—Postnecrotic cirrhosis with submassive necrosis, liver.

Contributor.—Dr. G. D. Lundberg, Brooke Army Hospital, Fort Sam Houston.

History.—A 68 year old white man had renal lithiasis with pyelonephritis and was thought to have renal failure. During hospitalization ascites and jaundice with manifestations of hypersensitivity angiitis developed. A specimen from needle biopsy of the liver was procured.

DR. GALL: The needle biopsy specimen of the liver was not the one that you received, although the implication in the abstract is that it was. Most of you recognized that the specimen was procured at autopsy from the alterations present. The biopsy was interpreted as exhibiting evidence of postnecrotic cirrhosis with a certain degree of active inflammation. I was told yesterday that a portacaval shunt procedure was performed but that the patient responded poorly. Hemorrhagic phenomena developed and he died. Death was attributed partly to liver failure and partly to massive, acute, suppurative pylephlebitis.

Autopsy specimens showed considerable autolysis. There were bands of connective tissue and columns of liver cells in disarray with no real lobular pattern remaining (Fig. 4a). The cells were swollen, and many contained multiple nuclei. The cytoplasmic margins were badly delimited, an indication of postmortem derivation. Other indications were the opaque quality of the cytoplasm and fallout of autolyzed liver cells. Extravasation of red cells was also manifest, and there was a blurred quality of the preexisting fibrillar stroma, which appeared to have lost its integrity.

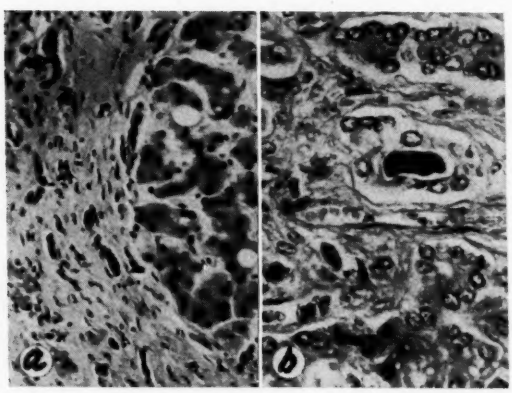

Fig. 4a. Case 4. (Postnecrotic cirrhosis). An island of regenerated hepatic parenchyma is bounded by dense collagen embedded within which are pseudoductules of trapped epithelium (x 190).

b. Case 4. Regenerating parenchymal cells form an acinus, the lumen containing a plug of inspissated bile (x 380).

Occasionally, the cords of liver cells assume an acinar appearance (Fig. 4b). This phenomenon has been emphasized periodically in connection with different forms of hepatic disorder, and certain investigators consider it a specific alteration. For instance, some maintain that parenchymal acinus formation is a characteristic of galactosemia.[22] There was obviously no connection with that disease in the present patient. Others believe that the alteration is a characteristic feature of hepatitis occurring in certain geographic areas.[43] It is obviously a nonspecific process which is seen generally and in all age groups. It is probably a manifestation of active regeneration; this is attested in part by the vesicular quality of the nuclei.

The broad scars contain pre-existing ducts, and short columns of pseudoducts and remnant clusters of parenchymal cells embedded in the stroma. There are pooling of blood in dilated vessels, nodules of preexisting cells without characteristic arrangement, inflammation of mild degree, and broad scars containing trapped ducts and pseudoducts (Fig. 4a). Incidentally, there is little or no detectable fat in these cells.

Submitted diagnoses.—Postnecrotic cirrhosis, 41 per cent; cirrhosis of the liver, 30 per cent; hepatoma, 13 per cent; cirrhosis and chronic hepatitis, 4 per cent; cirrhosis and toxic hepatitis, 4 per cent; allergic hepatitis (sulfonamide?), 2 per cent; biliary cirrhosis (?chlorpromazine), 2 per cent; histoplasmosis and cirrhosis, 2 per cent; septic embolism and cirrhosis, 2 per cent.

DR. GALL: Cirrhosis of the liver, 30 per cent! These are wise people undisturbed by minutiae. As to allergic hepatitis attributable to sulfonamide, I found no vascular lesions or other evidence of hypersensitivity. There were no alterations which were not common occurrences in other instances of cirrhosis in which failure was attributed to shock or liver anoxia. The designation "biliary cirrhosis" attributable to chlorpromazine probably stems from the presence of inspissated bile plugs in the center of some of the pseudo-acini and in the intercellular canaliculi. Inspissated bile of this nature is not truly a reflection of obstruction; it probably indicates a disturbance of bile formation or improperly synthesized bile. It doesn't seem to produce obstruction *per se*.

My diagnosis is in agreement with the majority. This is not a neoplasm. It is postnecrotic cirrhosis with the characteristic broad scarring, and is accompanied by a terminal submassive necrosis. Perhaps the term submassive "fallout" might be used, but this is more descriptive than scientific.

A series of illustrations highlights the development of such a lesion. In the first is a liver which has undergone submassive necrosis in an early stage of

disease. The organ is characterized by almost total loss of parenchymal content. It is collapsible with wrinkled capsule. A few foci in which liver cells presumably survive stand out above the collapsed background. In a more advanced stage of development, smooth zones represent areas in which there has been total destruction of parenchyma and collapse of hepatic framework. The nodules represent areas of regeneration with capacity for bile formation, hence their brown coloration. A transection through such a liver shows the collapsed portions and nodules of regeneration. This liver specimen is from a young woman 4 years after she had had acute viral hepatitis. Serial biopsy specimens exhibited a continuing, smoldering hepatitis. Progressive jaundice and signs of liver failure suddenly developed. There obviously had been an episode of massive necrosis of the remaining or regenerated parenchymal cells.

The ultimate sign of regeneration in the surviving individual is irregular, broad scarring, in which are embedded vari-sized nodules of regenerated parenchyma. A close-up view of such a liver shows the depressed, brown-colored broad scars and the golden-yellow regenerated nodules that may be minute or extremely large.

In the microscopic counterpart of the subject we've been discussing, the parenchyma has disappeared completely in this example of massive hepatic necrosis. There are shadow remnants of parenchymal epithelium, but most of these cells are either Kupffer cells or infiltrating histiocytes. Hemorrhage stems from the content of the sinusoids which fall together as the parenchyma disintegrates. Portal areas containing lymphocytic inflammatory exudate, bile ducts, interlobular ducts, and a fringe remnant of degenerated parenchymal cells also remain.

In those instances in which necrosis is not as severe, the fringe of surviving cells is visibly occupied in regeneration. The retained reticular framework collapses in areas in which parenchymal cells have largely disappeared. In due course the collapsed stroma becomes fibrotic, and the remnants of viable cells form islands of regenerating parenchyma. These nodules may be small or of considerable size. Ultimately, by reason of centrifugal growth or of the impingement upon adjacent fibrous tissue, the nodules assume spherical configuration.

The ultimate pattern is that of postnecrotic cirrhosis with the broad scars and spherical nodules of regenerated parenchyma. Little normal histologic structure remains in these nodules, in contradistinction to the findings in posthepatitic cirrhosis.[20]

In postnecrotic cirrhosis, hepatic failure may be induced by a variety of means. The most common is shock and hypoxia after massive hemorrhage from varices. Under these circumstances the regenerated nodules which had sustained life undergo necrosis

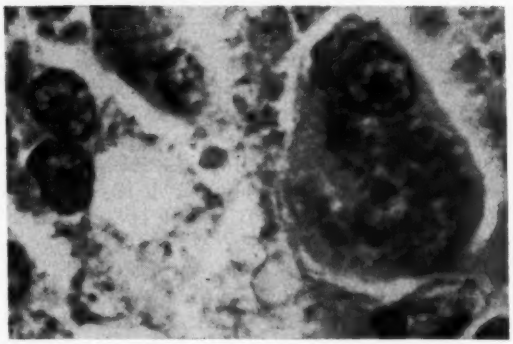

Fig. 5. "Alcoholic hyalin." A swollen hepatic cell contains a smudgy eosinophilic network indicating severe cellular injury (x 850).

characterized by oxyphilia and loss of nuclear staining. This is a common experience in patients with advanced liver disease.

As a characteristic but not entirely specific phenomenon, one may observe in patients who have been on alcoholic "benders" an eosinophilic hyaline network in some of the degenerated liver cells (Fig. 5); this is termed "alcoholic hyalin."[35] The present patient was, I think, an alcoholic. It does not necessarily follow, however, that a person with alcoholism and liver disease has liver disease because of alcoholism. Hyaline bodies were identifiable in the sections from the present patient, for whatever this may indicate.

The differential features in liver biopsy tissue for distinguishing the various forms of icterus are briefly reviewed. The three most common forms of jaundice are attributable to viral hepatitis, obstructive jaundice, and toxic hepatitis. The latter is the descriptive term I have applied to the lesion in the liver of the patient who has been on alcoholic debauch for a period of days or weeks.[19] This person often enters the hospital with deepening jaundice and all of the manifestations of hepatic failure. There are admittedly other forms of toxic hepatitis. For the present purposes I refer, however, to a very fatty liver, in contradistinction to the two other forms of hepatic failure in which fat is minimal or inapparent.

The liver in viral hepatitis exhibits a balloon-like enlargement of parenchymal cells, a feature not evident in obstructive jaundice and rarely apparent in toxic hepatitis. Occasionally pseudo-acinus formation is a feature. Parenchymal degeneration is manifested by the appearance of single hyaline cells, of a different type from those containing "alcoholic hyalin." These are not specific for viral hepatitis, but occur uncommonly in other conditions. As an indication of the focal necrosis, collections of lymphocytes appear as satellites about these cells. Fat is rarely manifest microscopically, and on assay of liver tissue the fat

content is normal or less than normal in viral hepatitis. This is in contradistinction to a heightened fat content in the other two conditions. Bile stasis is indicated by the appearance of inspissated plugs in intercellular canaliculi. This phenomenon is not limited to viral hepatitis, however. It is not rare in toxic hepatitis and is, of course, the rule in obstructive jaundice.

Universal inflammation in every portal area is a highly characteristic feature of viral hepatitis. It may occur in the other forms of jaundice, but is usually spotty and relatively inconspicuous. Lymphocytes are the predominant component; eosinophils appear in small numbers. The appearance of eosinophils, along with dense lymphocytic infiltration, is suggestive of viral hepatitis. Neutrophils are uncommon.

In obstructive jaundice, in contrast, neutrophils indicating cholangitis are often prominent, particularly in relation to interlobular ductules. In hepatitis the interlobular ductule is completely undisturbed, whereas in obstructive jaundice it is often surrounded by edematous connective tissue with a laminated arrangement. Neutrophils appear in the stroma, and within the duct. With continuing obstruction, ductular proliferation becomes apparent. This is in contrast to pseudoductular proliferation seen in prolonged hepatitis of the so-called cholangiolitic type, and also in early nutritional cirrhosis. The pseudoductule probably represents a flattened remnant of liver cells and is distinguished from true ductular budding with difficulty. I mention it not because it is a characteristic of a special form of jaundice but because it may appear in any hepatic disorder. As I pointed out, an exudate in the duct and around the duct is characteristic of obstructive jaundice; pericholangitis, which is not a specific entity but a descriptive term, may occur in all three forms of jaundice.

TABLE 3.—*Differential Diagnosis of Jaundice.*[19]

	Viral Hepatitis	Obstructive Jaundice	Toxic Hepatitis
Parenchyma			
Balloon cells	++	0	±
Pseudoacini	+	0	0
Hyaline cell	+	0	0
Hyaline net	0	0	+
Lymphocyte satellitosis	+	0	0
Neutrophil satellitosis	0	+	+
Fat	0	±	+++
Bile stasis	+	++	+
"Bile lake"	0	+	0
Portal Area			
Universal exudate	+++	±	+
Lymphocytes	+++	+	+
Eosinophils	±	0	0
Neutrophils	+	++	±
Ductules			
Proliferation	0	++	0
Pseudoductules	±	+	+
Exudate	0	+	0
Pericholecystitis	++	±	±

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In recapitulation (Table 3),[19] viral hepatitis is characterized by universal triadal inflammation. The liver has a reduced lipid content. Interlobular ductules are normal but small pseudo-ductules may appear at the periphery of the portal tract. The liver cells are swollen and may attain balloon-like configuration. Single cells undergo shrinkage, eosinophilic hyalinization, and disintegration. At the site of this spotty necrosis, satellite clusters of lymphocytes appear and remain after the cell disintegrates.

Intralobular focal necrosis in obstructive jaundice is related to the extravasation of bile and is characterized by a neutrophil reaction, a different lesion from that seen in viral hepatitis. An essentially pathognomonic alteration of obstructive jaundice is the "bile lake." Although this may rarely occur in massive hepatic necrosis, it is more or less diagnostic of obstructive jaundice. The pool of bile pigment is often surrounded by a halo of pale-staining liver cells with radial arrangement (feathery degeneration).

In toxic hepatitis, liver cells are swollen and vacuolated. The vacuoles are often coarse, the commonplace stuffing phenomenon seen in starved patients, but in addition there is microvacuolization as well. The fat has a curious fuzzy outline. Focal necrosis is frequent and accompanied by a neutrophil reaction. There is often "alcoholic hyalin," so termed by Frank B. Mallory, an eosinophilic hyaline network in liver cells probably representing swelling of damaged mitochondria.

WRITTEN QUESTION: What agent or agents cause postnecrotic cirrhosis?

DR. GALL: There is no one agent, whether of chemical, biologic, physical, or vascular nature. Many different hepatotoxic substances or vascular situations may induce postnecrotic cirrhosis in combination or singly.[39] There is no really good method for determining whether a specific instance is attributable to viral hepatitis or to a toxic substance. The only one that I have used—and I am not sure of its validity—is the consideration of universal triadal inflammation. Since the portal areas remain distinguishable, at least during the period of massive necrosis and regeneration, an attempt may be made to determine whether these are the site of the lymphocytic and sparse eosinophil infiltration so common in viral hepatitis. If so, and if, in addition the remaining parenchymal cells contain little or no fat, the lesion may be attributed to viral etiology. Nevertheless, it must be remembered that the massive necrosis and subsequent postnecrotic cirrhosis that may follow viral hepatitis is not necessarily attributable to the virus alone. A liver damaged by a virus is rendered

susceptible to any other hepatotoxic factor, whether a complicating infection, shock, dietary deficiency, alcohol, or any number of different common therapeutic agents. Thus the fact that the stigmata of viral hepatitis are present does not necessarily mean that the ensuing postnecrotic cirrhosis or submassive necrosis is the result of the viral infection alone.

WRITTEN QUESTION: What is your opinion regarding the functional capacity of regenerative nodules in cirrhosis?

DR. GALL: Clinical evidence of hepatic impairment often bears no relationship to the degree of cirrhosis. In contrast, those forms of cirrhosis with most distortion of lobular architecture, notably postnecrotic and nutritional cirrhosis, are most often accompanied by clinical evidence of hepatic impairment. In the cirrhosis which has been called septal, trabecular, or post-hepatitic, there are delicate fibrous bands with retention of lobular architecture; nearly 40 per cent are recognized only at autopsy.[20] In other words, these patients have adequate hepatic function so that they escape detection clinically. I think this is about the only way I can answer the question posed. So many factors may be involved, such as architectural distortion, character of fibrosis, vascular impairment, and recurrent infection, that it is impossible to relate functional deficiency to a single morphologic lesion.

WRITTEN QUESTION: What is your opinion concerning the hepatorenal syndrome?

DR. GALL: This is a clinical term of convenience. It was described originally as a rapidly deteriorating state after surgical intervention in patients with prolonged obstructive jaundice.[26] It has since lost this original connotation, and the term is applied frequently to almost any patient with jaundice who gives evidence of renal impairment. Thus, the term has become more-or-less meaningless as far as general usage is concerned. As a rule, however, when the circumstance of severe jaundice with evidence of hepatic failure is accompanied by renal failure, the lesion in the kidney is usually that of "lower nephron nephrosis," or acute tubular or tubulorrhectic necrosis, whichever term is preferred. The hepatorenal syndrome presupposes no specific renal or hepatic lesion.

WRITTEN QUESTION: Please distinguish between the terms "postnecrotic cirrhosis," "post-hepatitic cirrhosis," and "prolonged or smoldering viral hepatitis."

DR. GALL: "Postnecrotic cirrhosis" I think I have clarified. "Post-hepatitic cirrhosis" I consider to be—and I may not have any justification—the end product of prolonged, smoldering hepatitis. The term "viral," however, was slipped into this question. I have never considered that a virus was necessarily the basis for all instances of prolonged, smoldering hepatitis. It is my concept, and that of others, that prolonged relatively minor damage to the liver as the result of infection with a virus or with some other agent with continuous or repetitious activity may result first in inflammation in portal areas and ultimately in desmoplasia. The latter is indicated by enlargement of portal areas and increased fibrillar content with extension of the fibrous tissue beyond the confines of the portal area. The ultimate linkage of these fibrotic prongs with those emerging from either adjacent or distal portal areas results in the encirclement of single or multiple hepatic lobules. This condition is characterized, then, by nodules ranging up to a centimeter in diameter of relatively uniform size, embraced by trabeculae of narrow connective tissue bands. This finding is in contradistinction to nodules of varied size, as in postnecrotic cirrhosis, which are not so much separated by fibrous tissue as they are embedded in a broad fibrous matrix. This would be my distinction in terms of gross and microscopic structure. I hesitate to go into the question of pathogenesis in detail.

In an effort to determine the incidence of smoldering hepatitis in autopsies performed in Cincinnati General Hospital during a 5 year period, several thousand sections of liver overtly unaffected by any abnormality were collected. The livers in these cases contained no neoplasm, fat, or any of the common alterations ordinarily considered indicative of liver disorder. The sections were surveyed for universal portal-area infiltration with lymphocytes. Everyone here appreciates the fact that portal areas in adults commonly contain inflammatory cells. I'm not referring to the spotty involvement of one or another portal area, but of every portal area. This is the least variable of the histologic features in viral hepatitis, and was found in about 5 per cent of the present autopsy series. If one wants to assume a greater significance in this criterion and say "This is viral hepatitis," then approximately 5 per cent of the people who die in Cincinnati may be carrying the virus of hepatitis, or at least show evidence of prolonged, smoldering hepatitis.

WRITTEN QUESTION: How would you distinguish the section in the present case from hepatoma?

DR. GALL: I don't think it has much resemblance to neoplasm, but neoplasms often look much like non-neoplastic structures and vice-versa.[18] In the present instance, however, portal areas were evident in all parts of the lesion. When normal portal areas appear in a group of otherwise abnormal-looking liver cells, the diagnosis of hepatoma is untenable. Hepatoma, as in the case of other neoplasms except teratoma, is characterized by a monotony of cell type. There may be variations in configuration, but the cell type is essentially the same. In the present case, since normal portal areas appeared among the liver cells, a diagnosis of hepatoma cannot be sustained.

Case 5 (Pseudohepatoma)

Diagnosis. — Pseudohepatoma ("localized cirrhosis"), liver.

Contributor.—Drs. D. A. Todd, A. M. Richmond, and Sylvia Johns, Nix Hospital Clinical Laboratory, San Antonio.

History.—A 73 year old white woman had cardiac decompensation and pain in the right lower quadrant of indefinite duration. At operation the gallbladder was normal. A mass on the right lobe of the liver measuring 8 by 7 by 5.5 cm. was excised, and weighed 189 Gm. On sectioning, there were yellow-brown oval masses with coarse trabeculations. The patient was living and well 3 years after operation.

DR. GALL: This case serves as an excellent contrast, insofar as the histologic appearance is concerned, with Case 4. The liver cells have the characteristic clarity observed in the biopsy specimen, in contradistinction to the smudgy cytoplasmic opacity that appears in liver tissue at postmortem examination (Fig. 6a). There is one situation, however, in which this pale-staining, sharply outlined cellular feature is seen in the autopsy specimen, that is, in the person who dies suddenly while in good health and nutrition. This is the man with an acute coronary occlusion, or the person struck and killed by an automobile. In other instances, although autopsy may be performed within an hour of death, patients have actually been dying for hours, and sometimes days before the final breath. Thus the changes which appear in the liver, as well as in other organs, are really postmortem and agonal alterations and may have occurred during life.

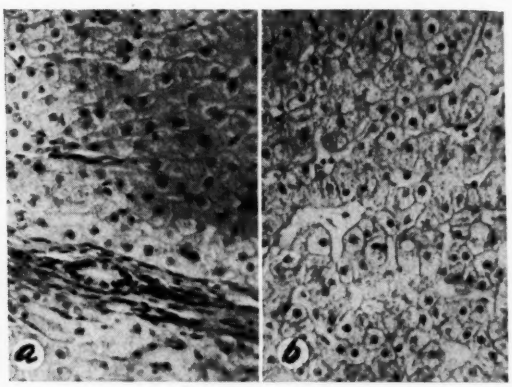

Fig. 6a. Case 5. (Pseudohepatoma, liver). Parenchymal cells are pale staining with distinct boundaries and vesicular nuclei. Sinusoids are detected with difficulty. A single narrow trabecula coursing through this area contains an interlobular ductule (x 190).

b. Case 5. Liver cells are distinctly outlined and clear staining. Contrast with postmortem appearance in Figure 4a (x 190).

In the present specimen there are normal-appearing liver cords, although they are not arranged in radial or lobular pattern. The cords or plates of liver cells consist of a single layer (Fig. 6b). This is the normal structure; in the disturbed liver there may be thicknesses of two, three, or more cells. Another characteristic of the biopsy specimen is the failure of sinusoids to show up well (Fig. 6a). They are compressed, because of the liver cell bulk. Rarely are the sinusoids dilated as they appear here. Conversely, in acute passive congestion, whatever its cause, dilated but empty sinusoids are prominent in biopsy specimens. In the autopsy tissue the examiner expects to find dilated sinusoids filled with red cells; in the needle biopsy specimen, in view of its thinness, red cells are washed out promptly in fixation and the sinusoids are emptied. One can presuppose that they had been filled when they were *in situ.*

In this section there are a few irregular trabeculations; normal-appearing parenchymal cells are in orderly arrangement, although not radial in pattern. There are occasional interlobular ductules, displaced central veins, and small clusters of lymphocytes indicating minor parenchymal cell damage.

In relation to some of the trabeculations, there is additional evidence of liver cell disturbance characterized by multinucleated cells and pseudo-duct formation. The segments of biliary ductules encountered bring to mind the point I made in discussing Case 4. The presence of interlobular and perilobular ducts precludes a diagnosis of hepatoma (Fig. 6a).

Submitted diagnoses.—Nodular hyperplasia, 31 per cent; benign hepatoma, 27 per cent; hepatoma, 20 per cent; hamartoma, 16 per cent; cardiac cirrhosis, 2 per cent; adrenocortical nodule, 2 per cent; cirrhosis with pericholangitis, 2 per cent.

DR. GALL: The term "benign hepatoma" has varied connotations not particularly useful in the present case because this is not neoplasm. "Cardiac cirrhosis" was considered perhaps because of the dilated sinusoids. "Adrenocortical nodule" is an indication, I think, of unfamiliarity with the appearance of liver cells in biopsy. Their glycogen content causes them to have a clarity of staining resembling adrenal cortical cells.

The diagnosis which I propose is "pseudohepatoma." It may be objectionable to some, but when all of the other applicable phrases such as "localized cirrhosis," "benign hepatoma," or "hamartoma" that have been used for this lesion are considered, pseudohepatoma may not be too poor a choice.[3, 4] The lesion is not a neoplasm, nor is it a hamartoma, which is really a malformation. The latter is not an acquired lesion, as I think this is. The nodule probably results from a localized insult to the liver with scarring and regenerative activity simulating that seen in cirrhosis, but sharply limited to a single focus. It may be

grossly indistinguishable from an adenoma, but is non-neoplastic and certainly has a benign connotation.

In another instance of this lesion, the patient died of disseminated lupus erythematosus. The liver contained a nodule thought to be a benign tumor; its microscopic appearance was similar to that in the present case. It was perhaps a little more trabeculated, but contained all components of liver substance. In another case there was a circumscribed nodule. The liver was otherwise normal; the patient died of an unrelated cause. The specimen of tissue from the liver proved to be like the present lesion—a pseudohepatoma with components of normal liver, disarranged by trabeculations. The parenchymal content of the nodule was so normal in appearance that under high power magnification the examiner could not tell whether the field was inside or outside the nodule.

Another localized form of hepatic disorder which may grossly simulate adenoma, is a syphilitic gumma. Microscopically, however, its inflammatory and necrotic character clearly distinguish it. In its florid phase the lesion is a circumscribed gray or bright yellow nodule. In healing, of course, scarring and retraction results in deep cleft formation and the so-called hepar lobatum. This type of lesion is a rare occurrence in the era of "magic drugs." I don't know what the situation is in this locality, but I see gumma of the liver about once in 2 or 3 years. Hepar lobatum occurs with about the same frequency. In hepar lobatum, the deeply penetrating scars indicate spontaneous healing of gummas. The intervening parenchyma is essentially normal in structure and function.

This is a view of a lesion I consider a true hamartoma. A hamartoma is a non-neoplastic nodular lesion containing components normal in a specific location, with no regular orientation and with overgrowth of one of the components out of proportion to the normal pattern.[1] This lesion appeared as a slab-like extension (a beaver-tail) of the liver in an adult. There is an overgrowth of connective tissue and a distortion of parenchymal cells. The connective tissue is edematous and non-neoplastic in character. Embedded in it are dilated ducts, and parenchymal cells without normal pattern and intrinsic appearance. Although I have seen truly malignant neoplasms resembling Wilms's tumor I do not believe that this particular malformation is a neoplasm.

WRITTEN QUESTION: Does this condition arise from nonspecific stimuli or a known noxious agent?

DR. GALL: I don't know. No causative agent has been incriminated. The lesion is usually an incidental finding.

QUESTION FROM AUDIENCE MEMBER: Is it usually one nodule, or does it tend to be multinodular?

DR. GALL: It usually appears as a single nodule. It may protrude from the liver surface or be deep-seated, as in the two I showed from my own collection. When they are multinodular, they may assume the appearance of hepar lobatum or perhaps even metastatic neoplasm.

Case 6 (Embryonal Hepatoma)

Diagnosis.—Embryonal hepatoma, liver.

Contributor.—Dr. George C. Mani, Santa Rosa Hospital, San Antonio.

History.—A 2 year old child had evidence of a liver mass after becoming extremely jaundiced. The patient's course was rapidly downhill. At autopsy the liver was multinodular.

DR. GALL: Actually, this patient was operated on and the mass removed. Forty-five days later there was again necessity for operative exploration because of peritoneal bile extravasation, and 36 hours after the second operation the patient died.

The tissue has a striking appearance in that there is such a varied pattern. There are nodules of easily recognizable liver cells, some devoid of fat and some fatty. Many are mature in appearance and resemble normal liver cells; others are immature and form glomoid aggregations (organoid nodules) (Fig. 7a). Some of the less mature cells are present in vascular channels. This lesion, which is essentially epithelial, abuts upon a peculiar area characterized by edematous stroma with succulent fibroblast-like cells and vascular channels; some of the latter contain blood and some are empty. Many are lined by flattened endothelium, and occasionally by swollen abnormal endothelium-like cells.

A higher power view shows two nodules in immediate contiguity, one consisting of disarranged cells with formless pattern and vesicular nuclei, which are recognizable as liver cells. Some contain fat and others have a trabecular pattern. In another portion of the lesion there is edematous stroma with fibrillations and swollen cells (Fig. 7b). I chose for demonstration one of these areas in which the channels contain swollen, neoplastic endothelial-like elements. Apparently there are several different patterns, and at least two different origins for them.

Submitted diagnoses.—Malignant hepatoma, 78 per cent; hamartoma, 4 per cent; Wilms's tumor, 4 per cent; cirrhosis, 4 per cent; hemangiosarcoma, 2 per cent; liposarcoma, 2 per cent; hemangioendothelioma, 2 per cent; congenital cirrhosis, 2 per cent; mixed tumor of liver, 2 per cent.

DR. GALL: The diagnoses submitted centered in good part about hepatoma. The term hamartoma was presumably introduced because of the combination of

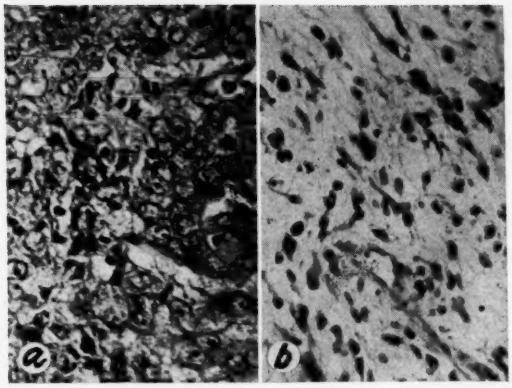

Fig. 7a. Case 6. (Embryonal hepatoma, liver). Bizarre neoplastic hepatic cells are arranged in ill-defined nest-like clusters. Resemblance to normal liver parenchyma is remote (x 450).

b. Case 6. Stromal component of the neoplasm has an edematous embryonal appearance (x 300).

the various types of lesions. This diagnosis is not justifiable because in this instance there is frank neoplasm; the intravascular invasion is certainly an indication of that. I suppose the term Wilms's tumor could be applied only because it is difficult to think of another name to cover all of the possible alterations. Most of the other diagnoses indicate bewilderment and frustration.

In young children I have seen combinations of all types of parenchymal, stromal, and vascular components; in some, one type has predominated and in others, another. I prefer to consider this an example of embryonal hepatoma.

This is the surgical specimen from the present patient, excised about 6 or 7 weeks before death. It was a huge tumor variegated in pattern. Its relationship to the gallbladder can be seen. This is a microscopic section from the lung at autopsy; metastasis is apparent.

This photograph shows a variant of hepatoma in the adult. The trabeculated pattern is not unlike that in the present case. In this view an excessive amount of glycogen deposit gives the lesion an appearance not unlike hypernephroma. The fibrosis surrounding it represents the cirrhosis upon which this tumor is superimposed. A variation of the epithelial arrangement in hepatomas is such that although there is resemblance to hepatic parenchyma, a tubular structure indicates that the lesion is a cholangioma. Here is an instance; the tubule formation indicates a greater resemblance to bile ducts than to parenchymal cells. A wide variety of these can be found. Those which are obviously ductal in appearance would best be termed "cholangioma"; those in which there is a resemblance to parenchymal cells, "hepatoma." Combinations of the two are designated "cholangiohepatoma."

Because so many of these lesions are multiple, there is considerable argument as to whether they represent metastases within the liver or multicentric independent lesions. I think that no stand on either side is justifiable, because presumably both may occur. There is much to be said for multicentric origin.[10]

This represents one of the complications encountered in hepatoma, a spontaneous rupture with hemorrhage into the peritoneum and death from exsanguination. This is another complication in which the tumor has grown into the hepatic vein, and has extended up into the inferior vena cava. Such lesions may on occasion indeed progress directly into the right atrium, and in rare instances into the pulmonary artery.

This is a gross appearance of cholangioma appearing in one lobe of a cirrhotic liver. Cholangioma, incidentally, is much less frequently associated with cirrhosis than is hepatoma.[11] Cholangiomas also may be multicentric in character. Here is one involving the entire right lobe and a good portion of the left.

Although hepatoma usually arises in a cirrhotic liver, it occurs in an otherwise normal organ in a significant proportion of cases.[21] I have seen 3 patients with hepatoma without cirrhosis who had clinical and biologic manifestations of porphyria, with acute episodes characteristic of this disorder. The tissue from one of these cases was sent to Cecil Watson for extraction, and contained a considerable amount of coproporphyrin.

The forms of these neoplasms that are seen in children have a bewildering variation. This is one in which the stromal component preponderates. Here is one with epithelium as the predominant element, but of the embryonal variety resembling Wilms's tumor of the kidney. In this instance the duct-like cords of epithelium can be seen. The cells are so flat that the examiner cannot be certain whether they are epithelial or endothelial. They are embedded in a stroma with a relatively benign appearance in this instance; it may be highly anaplastic and sarcomatous. Here is one in which the acini appear benign but the stroma is succulent and obviously neoplastic. I have seen one of these in which cartilaginous islands were manifest. The argument that the chondrous component of the mixed tumor represents a degeneration product of epithelium opposes the concept that it indicates a lesion of multigerm layer content.[13]

This peculiar variant of childhood hepatoma is characterized by trabeculation and compartment formation. Within the spaces thus formed are whorls of loose anaplastic connective tissues. The first time I saw such a lesion I was hard put to give it a name,

and finally termed it a bizarre sarcoma. Later I learned that there was an epithelial component elsewhere in the tumor. I have seen other instances in which the bulk of the tumor was of sarcomatous character, although epithelial components were detectable. Therefore, it probably represents an embryonal hepatoma to which all hepatic elements contribute.

In another portion of the tumor from the child in the present case report, the alterations in the sinuses were striking. Huge anaplastic endothelial cells lined the sinusoids in diffuse fashion. Nowhere were these circumscribed.

Angiomas of the liver are common. Indeed, they probably represent the most common neoplasm in the liver. In the main, however, they are small and are seen only incidentally at necropsy. There is a peculiar lesion presumably derived from the sinusoidal endothelium which may affect the liver in diffuse fashion. This is not peliosis hepatis, which consists simply of dilated sinusoids, pools of blood, and barely perceptible endothelial lining. No one seems to know what that condition really is. In the neoplastic process I refer to, there is wide distribution of the lesion throughout the sinusoidal system of the liver. In some instances the cells are large pleomorphic and their nuclei hyperchromatic, or the tumor cells form large masses filling the sinusoids.

The present case appears to show neoplastic overgrowth of all components of the liver. Hence, my designation is embryonal hepatoma.

Have any of you seen these peculiar combinations in infants and children? I am particularly interested in the combination of hepatoma-like foci and the angioma-like process.

DR. M. GREENBLATT, Fort Sam Houston: Is this the type of lesion that Willis considers under the designation of "hepatoblastoma?"

DR. GALL: Yes, I think it is.

Case 7 (Thymoma)

Diagnosis.—Thymoma.

Contributor.—Dr. J. M. Lukeman, Fourth U. S. Army Medical Laboratory, Fort Sam Houston, and Dr. J. J. Andujar, Fort Worth Medical Laboratory, Fort Worth.

History.—A 36 year old woman had complained of a sense of tightness and fullness beneath the sternal notch for about 2 months. A chest film revealed slight widening of the anterior mediastinum. A round, firm, lobulated mass, 4.5 by 4 by 4 cm., was removed.

DR. GALL: The first and most striking feature is that this is a lobulated lesion. These are septa of coarse character dividing the tumor into compartments. At this power the lesion is essentially of lymphoid nature. The stroma has a scroll-like pattern, but the lesion is predominantly lymphoid in character (Fig. 8a).

Higher magnification indicates the lymphocytic nature of the cells. Other cells in the background, however, are pale staining and have vesicular nuclei (Fig. 8b). The examiner need not be distressed at not being able to identify these elements with certainty. They have plagued authorities for as long as the lesions have been investigated. In the trabeculae the fibroblasts seem to be arranged in whorls. The lesion thus is composed of lymphoid elements with a background of pale-staining, swollen cells resem-

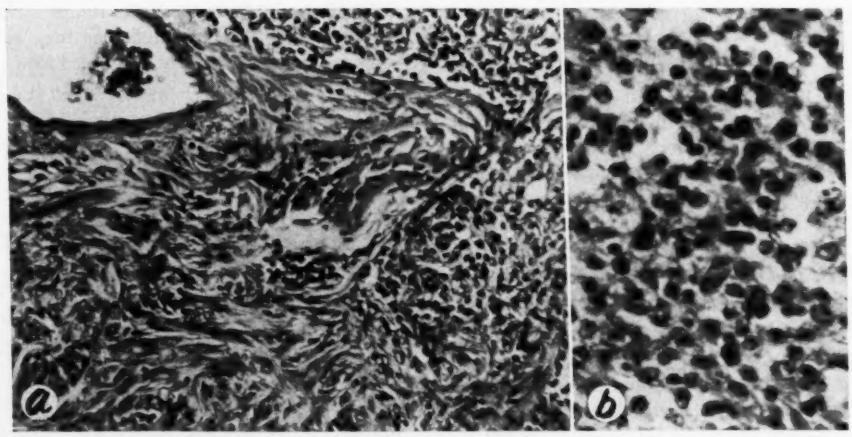

Fig. 8a. Case 7. (Thymoma). Scroll-like pattern of trabecular stroma contrasts with lymphoid character of the neoplasm (x 350).

b. Case 7. Lymphocyte-like elements comprise the cellular bulk of the lesion but a pale-staining background of "epithelioid" cells is manifest (x 525).

bling histiocytes and a scroll-like trabeculation dividing the lesion into lobules.

Focally the trabeculations are striking, and the lymphocytes are not as abundant as elsewhere. The background of histiocyte-like cells stands out prominently. Although many examiners are inclined to relate these cells to the epithelial component of the thymus, they straddle by designating them "epithelioid cells" (Fig. 8b). This is not to indicate a relationship to epithelioid cells of tubercles; the term simply implies uncertainty that they are truly of epithelial origin. Still others name them "reticulum cells"; how meaningful this is I need not elaborate.

The epithelioid cells form clusters that have been likened to "frustrated" Hassall's corpuscles. The fibroblasts with scroll-like pattern may blend with the epithelioid cells suggesting that the two are closely related. Thus an essentially lymphoid lesion is divided into compartments by fibrous trabeculations. There are some epithelium-like elements, and the mass is located in the anterior mediastinum. Altogether this should spell thymoma.

Submitted diagnoses.—Thymoma, 90 per cent; malignant thymoma, granulomatous type, 2 per cent; thymic neoplasm (lymphosarcoma), 2 per cent; poorly differentiated squamous cell carcinoma, 2 per cent; Hodgkin's disease, 2 per cent; chemodectoma, 2 per cent.

DR. GALL: The diagnoses submitted related almost exclusively to lesions of the thymus. Lymphomas may occur in the thymus but they should be distinguishable from thymoma. Those who considered the lesion a squamous cell carcinoma were obviously impressed by the scroll-like arrangement and the epithelioid cells. There seems to be no justification for the diagnoses of chemodectoma.

The thymoma is a neoplasm which rarely metastasizes.[5] Many may invade adjacent tissues by local extension, but dissemination is an exception. Many examples of metastasis from thymoma can probably be ascribed to tangential section of local extension to the lung or pleura. Cases have been described in which the lesion has infiltrated the pericardium or pleura and has even encased the lung as in mesothelioma. These may be considered malignant variants. All variations from the completely circumscribed, easily enucleable lesion, to one which is widespread, involving a considerable amount of adjacent tissues, are seen.

As to certain other tumors prone to occur in this locality: Thymomas are often mistaken by reason of their lymphocytic content for lymphomas, but they are not in this category. In contrast, lymphoma may affect the thymus, and may indeed prevail in this area with relatively few lesions elsewhere in the body. A form of Hodgkin's disease occurs primarily in the mediastinum and appears to remain limited to this area for long periods, even permanently. Conversely, systemic Hodgkin's disease may affect the thymic region as part of the diffuse process. I am not in agreement with the belief that all cases of Hodgkin's disease originate in the thymus.[14]

A curious neoplasm arising in the thymic area resembles the testicular seminoma and ovarian dysgerminoma.[28] This is a trabeculated lesion containing large embryonal cells in its compartments, and often exhibiting many lymphocytes and even tubercles in the trabecular stroma. There is some question as to whether this is a tumor of the thymus *per se* or simply an extrathymic mediastinal teratoma. Whether it is called a seminoma-like carcinoma or a germinoma, as has been suggested, is a matter of arbitrary choice.

To return to thymoma, here is one in which the pericardium and surface of the lung were invaded. Its lobulated character can be noted. These apparent satellites might be considered metastases, but on deeper sectioning there is direct continuity between them and the major mass. Thymomas almost invariably are characterized by trabeculation. This is well shown in cross section. Here is a thymoma which is encapsulated and which exhibits no invasion of adjacent structures, removed from a patient with myasthenia gravis. Another case showed both trabeculations and lobulations.

The cellular pattern varies considerably. In this one the lesion is lymphoid rather than epithelial. Grossly, it had a "fish-flesh" appearance. I am puzzled when that term is used; I am never certain what kind of fish is being referred to. In this thymoma an epithelial pattern prevails. With some imagination it might be considered an aberration of a Hassall's body (Fig. 9). A cystic arrangement may appear, as in this case, and there may be varied combinations of

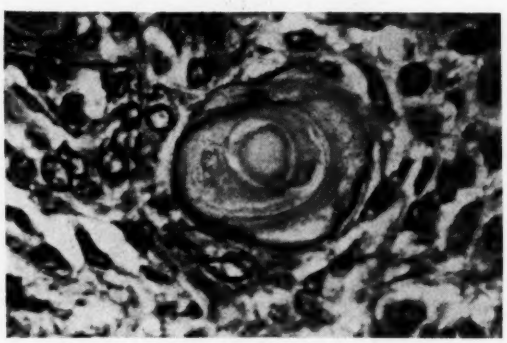

Fig. 9. (Thymoma). An epithelial component assumes the appearance of a Hassall's corpuscle (x 850).

patterns. In this portion there is an epithelial arrangement with large pale-staining cells and relatively few lymphocytes. The cells may form scroll-like patterns not unlike that in the present section. The resemblance to Hassall's corpuscles is usually remote. Here, however, is an instance in which it is striking; the lesion is predominantly epithelial. In contrast, this is a thymoma which looks like lymphoma. The scattered pale-staining cells should not be mistaken for Sternberg cells. This one is a mediastinal germinoma. It resembles the testicular seminoma. As in the case of thymoma it is also trabeculated, but this is a fine septation not visible in the gross specimen. The compartments are extremely small and are filled with formless masses of primitive cells. In the trabeculations only there are lymphocytes in abundance.

This is another lesion which occurs in the mediastinum. Most of you are familiar with it, although Dr. Castleman complained at the recent seminar of the American Society of Clinical Pathologists that no one had learned about the process from him[6] or from me at the New Orleans Seminar in 1947.[40] It can be mistaken for thymoma clinically, and has been mistaken for that lesion on pathologic examination. This is mediastinal lymph node hyperplasia; it is usually easily excised and has the appearance of a giant lymph node in the gross examination. Microscopically, it is characterized by retention of architecture and follicles. However, projecting into the follicles are minute vascular twigs. No one knows whether these are pre-existent in follicles or grow into them. Their appearance is characteristic, and although they could conceivably be mistaken for Hassall's corpuscles, I believe this to be unjustifiable. This lesion is simply a giant lymph node and probably indicates a response to chronic infection in adjacent organs, notably the lung.

Dr. Andujar, can we have the follow-up report in this case?

DR. ANDUJAR: This was a case from the Fort Worth Medical Laboratories. Dr. Lukeman was relieving me while I was in Brazil last year and he procured the specimen. The patient died 2 weeks after operation. At autopsy, there was no evidence of extension tangentially or in any other plane. Therefore, the diagnosis seems justified.

DR. K. G. ISHAK, Dallas, Texas: Would you comment on thymomas associated with Cushing's syndrome?

DR. GALL: These occur, but are rare.[27] The same clinical syndrome may occur in association with oat-cell carcinoma of the lung.[81] These endocrine interrelationships are disturbing. The thymoma with Cushing's syndrome often, but by no means always, shows a predominance of the epithelial component. There is no thymic resemblance to the structure of the adrenal in this syndrome. Indeed, the adrenal in these cases is indistinguishable from those in patients with Cushing's syndrome who have no thymoma. It seems that this either represents coincidence, or a provocation of the adrenal or the pituitary by some alteration in homeostasis engendered by the tumor *per se*. I have no way of relating any endocrine function to the thymic tumor.

DR. E. DECOURSEY, San Antonio: Why is thymoma not a form of lymphoma?

DR. GALL: May I get a little didactic in response to the question? By lymphoma is meant a neoplastic overgrowth of some element derived from lymphoid tissues, and in this instance the overgrowth is only partly of lymphoid nature; epithelial elements also participate. I suppose the term "lymphoepithelioma" could be used. It really is a form of lymphoepithelioma, but that expression is beginning to lose some of its original connotation, being applied to both benign and malignant lesions. I, for one, would prefer to retain the term for the highly malignant, radiosensitive tumor occurring in the pharynx and nasopharynx, the Regaud tumor.

To return to this matter of thymoma versus lymphoma, lymphoma may certainly affect the thymus, and when it does, the neoplastic overgrowth completely destroys the pre-existing thymic architecture. When there is overgrowth of what used to be called "thymocytes" (most authorities agree these are really lymphocytes) and also of the epithelial components, a diagnosis of lymphoma is not warranted.

The next question that might be asked is "If these cells you call 'epithelial,' or 'epithelioid' are by other examiners called 'reticulum cells,' when can you be sure that a thymoma is not a manifestation of Hodgkin's disease? Others could say these nonlymphocytic elements are Sternberg cells, couldn't they?" In that instance I would have to see the cells that have been called Sternberg cells. If they are indeed of that nature, the lesion would be an example of Hodgkin's disease. Nevertheless, a clear distinction between even bizarre epithelioid cells and Sternberg cells can be made. The Sternberg cell is highly characteristic, and it does not appear in thymoma.

DR. G. MANI, San Antonio: Do you recognize or believe in a granulomatous form of thymoma resembling Hodgkin's disease?

DR. GALL: In a granulomatous form of thymoma inflammatory lesions may exhibit tubercle formation, but I do not believe that this is a variant of Hodgkin's disease for the reasons I gave before. There can be wide variation in the structure of thymoma from one case to another and—as in the present case—from one part of the lesion to another.

DR. H. A. VAN AUKEN, San Antonio: What is your opinion of the granulomatous thymoma of Lowenhaupt?

DR. GALL: The answer I have just given applies.

Case 8 (Embryonal Carcinoma)

Diagnosis.—Embryonal carcinosarcoma, kidney.

Contributor.—Dr. Gall.

History.—A 70 year old Negro woman entered the hospital with a history of vomiting for 1 week. She also had had episodes of diarrhea and aching pain in the right lower quadrant; this was less severe in the erect position. On examination there was a mass in the right lower quadrant. No function was apparent in the right kidney on intravenous pyelography. Retrograde pyelograms showed poor filling of the right ureter approximately 10 cm. above the bladder. Exploration through the right flank revealed a massive neoplasm with numerous enlarged perirenal nodes. Only a biopsy examination was made, and the patient died 10 days after operation.

DR. GALL: I had the misfortune to struggle with the biopsy on frozen section and later, also, with the final paraffin sections. At autopsy there was neoplastic invasion of the renal vein and vena cava on the side of the affected kidney. There were metastases to the lung and pleura and studding of the peritoneal coat. The sections showed a stromal neoplasm with a succulence not unlike that seen in part of the original biopsy (Fig. 10a). The sarcomatous cells had a spindle shape and a strap-like appearance. Most of you probably used higher magnification to find striations. I hope you had better luck than I; I didn't find any.

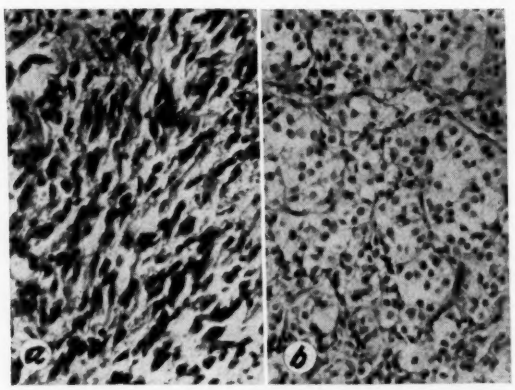

Fig. 10a. Case 8. (Embryonal carcinosarcoma, kidney). Most of the neoplasm has a sarcomatous appearance with bizarre fibroblast-like spindle cells embedded in an edematous matrix (x 300).

b. Case 8. Tubule-like clusters of poorly outlined cells form the epithelial component of this neoplasm (x 190).

In the background were small islands of neoplastic epithelium which seemed related to a surface alteration. Indeed, the examiner couldn't be sure that they weren't just downgrowths from the surface. There is thus a combination of an edematous stromal and an anaplastic epithelial neoplasm. The peculiar pattern of the epithelium resembles no recognizable preexisting renal or other structure. In the stroma there is a suggestion of bizarre cartilage formation.

This is the biopsy specimen, in which the epithelial component consists of cords of cells seemingly attempting to form tubules and nests with glomeruloid appearance (Fig. 10b). There is some resemblance to embryonal ovarian neoplasm. Elsewhere the lesion looks more like a fibrosarcoma, despite minute islands of epithelium that exhibit abortive efforts at acinus formation. It was concluded that this was a malignant tumor, not primary in the kidney. The diagnosis was partly right: It was malignant.

At autopsy, the lesion was intrarenal. Actually, it had a peripelvic location but had invaded the kidney widely, replacing most of the parenchyma, and pseudopod-like processes extended into the dilated pelvis and calyces. Most of the renal parenchyma was either atrophied or invaded by the neoplasm. Some of the fresh autopsy material showed a much more cellular lesion than was evident in the sections which were sent to you. Also here the nests of epithelial cells indicated that this component had not only extended from the surface but actually grew in the midst of the tumor. This is extremely anaplastic epithelium, embryonal in type. The stromal component, too, is of primitive appearance. Again note the strap-like character of the cells which disappointingly did not contain striations.

Submitted diagnoses.—Wilms's tumor, 23 per cent; renal cell carcinoma, 19 per cent; rhabdomyosarcoma, 15 per cent; sarcoma, 15 per cent; carcinosarcoma, 12 per cent; collision tumor, 6 per cent; teratocarcinoma, 4 per cent; malignant mesothelioma, 2 per cent; malignant mesenchymoma, 2 per cent; mucinous carcinoma, 2 per cent.

DR. GALL: I hope the 15 per cent who made the diagnosis of rhabdomyosarcoma found the striations. "Sarcoma" is essentially an indication of noncommital circumspection. "Collision tumor" is a designation which doesn't quite fit under these circumstances. "Teratocarcinoma" is unjustified because the combinations present do not stem from more than one germ layer. "Malignant mesenchymoma?" A rose would smell as sweet! My own diagnosis is embryonal carcinosarcoma, which I confess is descriptive.

May I give examples of a few uncommon renal lesions which differ from ordinary primary renal cell carcinoma? This is a leiomyosarcoma; yesterday someone showed me a lesion which I thought might be the same. The growth can be primary in the kidney, although in this instance it extends into it, arising, I think, from vessels in the renal capsule.

Here, in contradistinction, is a large renal cell tumor; it is benign-looking histologically. However, its size exceeds that arbitrarily selected for division between benign and malignant renal cell neoplasm—

3.0 cm. I would consider this a renal cell carcinoma even though it is indistinguishable from an adenoma except for size. There is involutional change in the central portion, giving a peculiar translucent appearance in the gross specimen.

Here, in contrast, is a fixed example of Wilms's tumor in a child. There is extensive invasion and replacement of the renal parenchyma. This next view is a variant of Wilms's tumor in a large tissue section. The narrow rind is the sole residuum of the pre-existing kidney. The large bulbous mass of neoplasm is exclusively glandular, an epithelial variant of Wilms's tumor. This next one shows the familiar pattern of classical Wilms's tumor. The gelatinous-looking stroma occasionally contains rhabdomyocytes, epithelial masses, abortive tubules, and even an occasional attempt at glomerulus formation.

Here is another example of variation in the stromal pattern and gradual, or occasionally abrupt, transformation into epithelial structure. Of course, islands of primitive cartilage may also appear in these lesions.

AUDIENCE MEMBER: Why do you use the term "embryonal" along with "carcinosarcoma?" Why not just call it carcinosarcoma?

DR. GALL: I use the terms essentially in a descriptive sense. The mesenchymal component has a distinctly embryonal appearance. It looks much like what is seen in a Wilms's tumor, and there it is termed embryonal. Why not here?

AUDIENCE MEMBER: I was thinking about the patient's age—she was 70 years old.

DR. GALL: There is no reason why embryonal lesions may not appear in elderly folk. I have no objection to dropping the expression. Nevertheless, I used it descriptively, and one gives up terminology with reluctance.

DR. LEO LOWBEER, Tulsa, Okla.: Rupert Willis writes at length about certain forms of renal carcinomas, which may imitate liposarcoma and other kinds of sarcoma; yet he calls them all carcinoma.

DR. GALL: This is again a matter of concept. Fred Stewart also believes that many of these combinations of carcinoma and sarcoma represent variations of epithelial neoplasms only. A good example of this in a common benign lesion is the mixed tumor of salivary gland. In this instance the apparent supporting tissue component and cartilage, too, are considered products of the epithelium and the tumor is said to be an adenoma. I have no objection to accepting this concept, as long as it is recognized that this is an opinion and not necessarily a fact. Certainly in the case of the mixed tumor it seems reasonable. I am not altogether certain of it in renal neoplasm.

WRITTEN QUESTION: Do you consider the patient's age a barrier to a diagnosis of Wilms's tumor?

DR. GALL: Yes, I do. The Wilms's tumor refers to a lesion occurring in infancy. Although the term "adult type of Wilms's tumor" may be used, if desired, this is really misusing the name, as the dictionaries indicate. Moreover, the pattern of the lesion is different from that of Wilms's tumor, even though there can be great variation in the latter lesion, also. I prefer not to consider this an example of a Wilms's tumor in an adult.

AUDIENCE MEMBER: I'd like to ask about the distinction of adenoma from carcinoma only by size. Do I understand you to say that if this lesion is big and looks histologically benign, it is malignant?

DR. GALL: This is no original concept of my own. It was introduced many years ago and appears in most textbooks.[2, 48] At all events, many authorities use this arbitrary rule of thumb. A specific field in renal cell carcinoma may appear completely innocuous and benign; still this tumor may have metastasized. I have simply accepted the authority of others who have had wide experience; it fits my own experience and is a useful working rule. It is certainly not an absolute law. I have found that when tumors of this nature are seen incidentally at autopsy, only those that have exceeded 3.0 cm. have been accompanied by metastasis. A smaller one could metastasize, but rarely does. One sees dozens of minute adenomas with varied pattern—papillary and nonpapillary, well differentiated and bizarre—in scarred kidneys. These lesions are often histologically indistinguishable from the pattern observed in malignant tumors. To all intents they never show evidence of metastasis.

AUDIENCE MEMBER: I have seen one tumor which measured about 5 cm. in diameter, with no metastases 5 years after removal.

DR. GALL: I don't doubt that many large tumors can be found without metastasis. Metastasis in any neoplasm, after all, is a matter of "happenstance." It may occur early or late, or not at all. In my days as a resident, I recall a patient with a nodule in the lung. It was removed and a diagnosis of metastatic renal cell carcinoma was made. A postoperative pyelogram demonstrated a renal lesion, and the kidney was excised. This showed renal cell carcinoma. Later there was a cerebral metastasis. This, too, was removed, and after a period of well being, generalized dissemination of the neoplasm caused death.

Case 9 (Lymphangioma)

Diagnosis.—Lymphangioma ("hygroma"), uterus.

Contributor.—Dr. D. A. Todd, Dr. A. M. Richmond, and Dr. Sylvia Johns, Nix Hospital Clinical Laboratory, San Antonio.

History.—A 40 year old women had a hysterectomy for leiomyomas in January, 1959. The uterus measured 9 cm. in length, 6 cm. in width, and 5 cm. in thickness. Both cornua were bosselated.

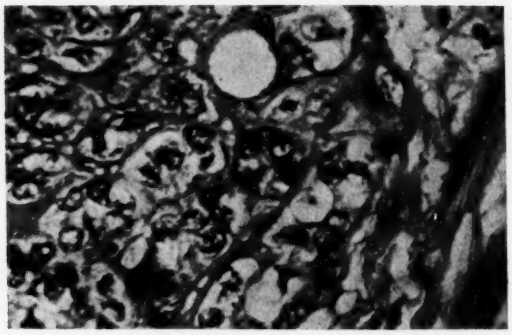

Fig. 11. Case 9. (Lymphangioma, uterus). A collection of swollen, vacuolated cells within the myometrium adjacent to an "endothelial"-lined channel. These are thought to represent a smooth muscle bundle in cross section (x 600).

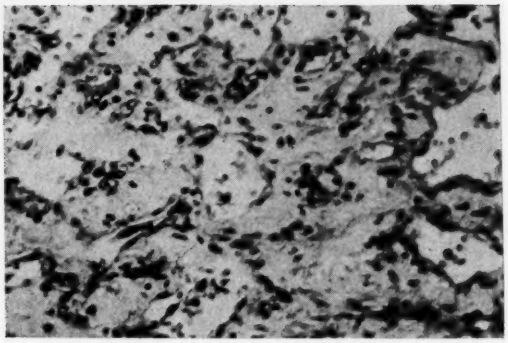

Fig. 12. (Cavernous hemangioma). Endothelial - lined spaces containing red cells are separated by sparsely cellular collagen. These resemble the channels in the uterine sections in case 9 (x 250).

DR. GALL: The section shows smooth muscle of the type observed in the uterus. I don't know which part of the uterus this came from, but among the smooth muscle fibers there are large, dilated, sinusoidal channels. These are lined by flattened endothelium in a few instances, and elsewhere are devoid of lining elements. In the stroma between the sinuses, there are swollen cells, some looking as though they were in the process of evacuation to form channels. Others appear vacuolated and perhaps contained fat, and still others simply resemble smooth muscle cells in cross section (Fig. 11). My recollection of the original specimen—and it has been a long time since I saw it—was that these cells had a much more epithelial appearance. However, I was unable to find anything frankly epithelial in the present specimens, and I examined about a half-dozen sections. I prefer not to trust my recollection at long range. Some of these channels contain red cells. This area is the nearest to what I can remember of the original section. I certainly couldn't consider these epithelial elements.

Submitted diagnoses. — Mesothelioma (adenomatoid tumor), 44 per cent; leiomyoma, 21 per cent; lymphangioma, 15 per cent; angioma, 6 per cent; mixed cell sarcoma in leiomyoma, 2 per cent; adenocarcinoma, 2 per cent; lipoid granuloma, 2 per cent; mesonephric rests, 2 per cent; interstitial emphysema, 2 per cent; salpingitis isthmica nodosa, 2 per cent; cryptococcosis, 2 per cent.

DR. GALL: Adenomatoid tumor was what I thought this was when I reviewed the original section and selected the case for this meeting. The diagnosis of leiomyoma made by 21 per cent indicates great faith in gynecologists. There were no fibroids in the samples I saw. Lymphangioma is the diagnosis I finally had to select from the tissue available. Mixed cell sarcoma in leiomyoma I cannot support, nor any of the rest of the diagnoses. Possibly there was a mesonephric rest down in the fornix, part of which was of vascular nature, but I couldn't identify recognizable mesonephros. My diagnosis is cavernous lymphangioma; perhaps in quotation marks you may like the term "uterine hygroma."

I would like to demonstrate quickly some of the variations that are seen in angiomas to point up why cells outside the vascular channels may have an epithelial appearance. It is usually assumed that they are related to the vascular channel and are essentially perithelial cells, the precursors of smooth muscle. That being the case, they could appear in the uterus, either as part of the uterine wall or of the uterine vascular component. Ordinarily cavernous hemangiomas have large channels and are separated by trabeculae of varying width with relatively little intervening cellularity (Fig. 12). The examiner may, however, find marked cellular content, and the resemblance to glomus tumors is sometimes striking. These undoubtedly represent perithelial cells surrounding the vascular channels.

As I have said, there may be wide variations among angiomas and indeed in individual lesions. This is an example of a thoracic duct lesion, probably a hamartoma, in which there was widening over a 4 cm. segment. There is smooth muscle forming trabeculations in a sieve-like channel; the trabeculations contain small nodules of lymphoid cells.

In contrast, endothelial lesions may be found. In this instance the lesion is in a lymph node, but of hemangioendothelial origin. The cells are spindle-shaped and resemble fibroblasts, although they occasionally form vascular channels. Conversely, lymphangiomas may consist simply of wide spaces containing lymphocytes in which the endothelium is all but inapparent.

You are all probably familiar with adenomyosis of the uterus, and with that uncommon variant, endolymphatic stromal adenomyosis, in which the vascular or lymphatic channels are filled with an over-

growth of stromal fibrous tissue.[42] If this stromal component in such a lesion were removed, the remaining pattern would be the exact counterpart of what was manifest in the present case. The intersinusoidal tissue was composed of polyhedral elements resembling those in the present case. They are obviously smooth muscle cells cut end-on.

Of course the question, "Is a diagnosis of lymphangioma actually justified?" may be raised. "Is this a tumor or a malformation?", or "Does this section actually contain a lesion and is it not actually an artifact?" The problem of distinction between neoplasm and hamartoma arises with many vascular lesions. In the better differentiated ones, the examiner may never be certain which they are. Most of us use the term angioma or lymphangioma, as in this instance, with the anticipation that the lesion may be a malformation and not a true neoplasm. This patient, incidentally, is living and well; she was operated on 10 months ago.

AUDIENCE MEMBER: Would you expect further spread from this lesion?

DR. GALL: I would expect no difficulty. This section just happened to show an alteration that probably is much more common than suspected. Did anyone find any of the components that I recall were there? Were these responsible for the diagnosis of adenomatoid tumor that some of you rendered? Would anyone like to say what an adenomatoid tumor is?

AUDIENCE MEMBER: Isn't it believed that adenomatoid tumors are derived from the peritoneum?

DR. GALL: You would believe, then, that this is a mesothelioma. That is an acceptable alternative diagnosis, and in a democratic era everyone has a vote. I couldn't establish such a diagnosis in the tissue I had. When slides cause a divergence of opinion, I am reminded of a meeting of our state society a number of years ago. One of my residents presented his first paper. His father, who was in the fur business, and his brother, who was a graduate student in philosophy, both came to hear him, and remained afterward for the slide seminar. When the first case was presented and there was a variance of opinion, they looked with amazement as a count was made to determine the correct diagnosis. Since the poll showed a close count, they considered that in a democracy they, too, had a vote. From then on they also voted, and very often theirs were the deciding opinions that established the "official" diagnosis.

The powers of darkness and rebellion arose in connection with the last diagnosis. Captain Abul-Haj has provided photomicrographs of lesions of mesothelial origin in the genitalia. I would like to show them, giving him full credit for my interpretation.

This is an intramural lesion of the uterus showing large, irregular, clear spaces with cellular intervening stroma. There is a precipitate in the spaces. Although this was, I believe, provided to indicate the close resemblance between the lesion in the present case and adenomatoid tumor, the lining of these spaces is prominent, and though not cuboidal, is certainly a tall squamous type of epithelium. Moreover, there is a secretion. This might, to the unguarded, be interpreted as lymph. By the special stains that Dr. Abul-Haj and Dr. Rinehart have used, it proved to be hyaluronic acid, a secretion of the lining cells.

Here is a close-up view in which some of the spaces are unlined; others, however, are lined. It is the current concept of many that these cells represent either displacements or downgrowths of peritoneal mesothelium. By histochemical analysis, it has been shown that the deposit is hyaluronic acid. The bubbly appearance of the cytoplasm is apparent in some of these cells, indicating that the secretion probably emerges from them.

Another type of lesion, appearing on the uterine surface, is more the counterpart of mesothelioma in the pleura. This often appears as a papillary lesion. Again, the stroma may have a cellular appearance, but the characteristic feature is the surface epithelium. Because I haven't seen these microscopically, I am not certain that these are not calcific deposits in some of the papillary fronds; certainly the change occurring in this frond might be the precursor to psammoma-body formation. I'd like to call your attention (and I analyze this from the photomicrographs and not from the section) to the surface epithelium of ovarian tissue and to its similarity to the epithelium seen in some of these papillary processes. A higher power view shows the similarity of the stroma and surface epithelium in a papillary mesothelioma to the lesion seen in the intramural portion of the uterus in the case presented by Drs. Todd, Richmond, and Johns. With respect to their case, I failed to indicate that the lesion was bilateral and representative of the bosselated bulges at the cornua of the uterus. This, I gather from Dr. Johns. Thus, this slide did not represent, as I had supposed, a fortuitous section, but was a purposeful one through what was a grossly evident bilateral lesion. In all humility, however, I will still stick to my original diagnosis of lymphangioma. Since the subject has been reopened, however, I would welcome any further discussion, refutation, or rebuttal. The voice of authority is in diminuendo at the moment.

COL. C. J. FARINACCI, Fort Sam Houston: Were any special stains used?

DR. GALL: I didn't use them. Did you, Dr. Johns?

DR. S. K. ABUL-HAJ, Fort Sam Houston: We have stained an extra section for acid mucopolysaccharides using the colloidal iron technique, and it revealed a strongly positive reaction. Lymph does not stain in this manner.

DR. GALL: It had the same bluish reaction in the precipitated material.

DR. ABUL-HAJ: Yes, it did.

DR. GALL: With respect to the use of special stains in establishing diagnosis, they should be used as they fit your hunch.

DR. ABUL-HAJ: It is my personal opinion, based upon experience with this reaction and use of the enzyme hyaluronidase, that such elaborated materials are exclusively acid mucopolysaccharides. This is particularly true when the staining affinities of these materials are inhibited in sections pretreated with hyaluronidase, which leaves no doubt as to the chemical nature of the secretions. Lymphangiomas do not contain acid mucopolysaccharides. Hyaluronic acid, an acid mucopolysaccharide, is widely distributed within connective tissue and constitutes the major bulk of the vitreous humor and the synovial fluid. It is secreted by all mesothelium lining serous cavities, that is, by pleura, pericardium, peritoneum, and bursae.

DR. GALL: So be it!

Case 10 (Cretinous Goiter)

Diagnosis.—Cretinous goiter.

Contributor.—Dr. Gall.

History.—A 2,590 Gm. white girl, born at full term after an uneventful pregnancy, breathed spontaneously. A protruding tongue, dry skin, and an umbilical hernia were noted, and a 3 cm. mass was palpated in the thyroid region. The mother was receiving treatment for myxedema. She had had two children previously, both of whom resembled the patient in appearance.

Radioactive iodine was administered to the child and no uptake was detected in the cervical region. On the roentgenogram the epiphyses showed evidence of retardation. Thyroid extract (1/20 grain per day) was administered. The infant responded poorly, did not eat well, and finally died on the fifth day.

DR. GALL: The history in Case 10 is correct, but the specimen came from a sibling who died at the age of 5 months and who had an enlarged thyroid at that time. The child had had evidence of thyroid deficiency throughout the short period of its life and had not responded well to thyroid substance.

This lesion was so cellular and so nodular that several of you considered it a neoplasm (Fig. 13a). At the margin of one nodule is a streak of parenchyma which has a barely perceptible acinar pattern. Another nodule has a papillary character. The epithelial cells and cords elsewhere, however, exhibit only abortive acinus formation and relatively little evidence of colloid production (Fig. 13b).

The nodules have interdigitating processes, but there is no invasion, no bizarre cells, and no extension beyond the confines of the thyroid. There is

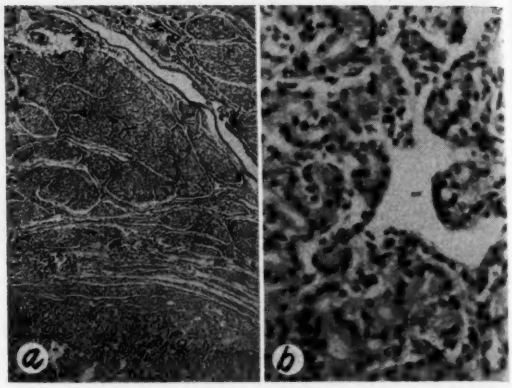

Fig. 13a. Case 10. (Cretinous goiter). The nodular "adenomatous" character of the highly cellular thyroid shows variation in pattern and absence of colloid (x 15).

b. Case 10. Epithelium is arranged in irregular cords with only abortive effort at acinus formation and no colloid production (x 300).

no lymphoid hyperplasia as in adult hyperplastic goiters, nor evidence of acinar papillary infolding. This thyroid really never had a chance to function.

Submitted diagnoses.—Congenital goiter, 25 per cent; infantile thyroid hyperplasia, 21 per cent; congenital goiter of cretinism, 18 per cent; hypoplastic thyroid gland, 13 per cent; embryonal adenoma, 13 per cent; follicular adenocarcinoma, 6 per cent; parathyroid adenoma, 2 per cent; Hurthle adenoma, 2 per cent.

DR. GALL: Twenty-five per cent considered this a congenital goiter, and 21 per cent infantile thyroid hyperplasia, an entirely similar concept. Goiter of congenital cretinism is the diagnosis I prefer. "Hypoplastic thyroid" is certainly an understatement insofar as cellular activity is concerned; perhaps there was a little syllable slurring and "hyper" was intended. These diagnoses of neoplasm are understandable. Certainly this has a neoplastic or adenomatous appearance. Indeed, in experimental animals neoplasms can be induced by overstimulation, probably by the same means by which this particular lesion was provoked.

Studies in the mother, who had three children, all cretins, showed an abundance of circulating thyroid antibodies. How this might explain the provocation or stimulation of the fetal thyroid is a little circuitous. The endocrinologists explain that this occurs in approximately 25 per cent of mothers of goitrous cretins. Antithyroid globulin, however, should not produce hyperplasia; it should instead induce inflammation.[49] This form of cretinism probably results from a genetic defect leading to interference with the production of thyroxin. This, in turn, causes excitation of thyroid-stimulating-hormone production in the pituitary, resulting, in turn,

in an unending cycle—less thyroxin, or no thyroxin, more stimulation, and ultimately nodular thyroid hyperplasia. The counterpart is seen in adults who have been receiving intensive thiouracil treatment. It may also be provoked by therapy of anemia with cobalt-containing substances. Ronkavite has induced essentially the same type of epithelial hyperplasia in the thyroid.[32]

In this photograph of an athyroid cretin, there was no development of the thyroid. Indeed, as the next slide shows, the thyroid in this child was essentially a mass of fibrous tissue. It contained only a rare acinus and practically no colloid. This, in contrast, is a counterpart of the lesion in the present case. This patient, too, was a goitrous cretin with hyperplasia on the basis of failure of thyroxin production.

The next slide is an example of what the thyroid looks like in the normal newborn infant. The acini are extremely small, but they are distinctly formed and have an obvious colloid content, although in small amounts.

Another slide shows the appearance of hyperthyroidism in the child. It differs in no significant manner from such a lesion in the adult. Lymphoid follicles, hyperplasia, papillary infolding, and scalloping of colloid need no remark. For contrast with this and with the alterations seen in the present case, a fetal adenoma of the thyroid is shown. It is composed of cords of small cuboidal cells, abortive acinus formation, minor true acinus production, and failure of colloid production. This does not differ too strikingly from certain portions of the thyroid in the present case.

This is what is called by some embryonal adenoma; by others, oxyphil-cell adenoma; and by still others, Hurthle cell tumor of the thyroid. There is a cord-like arrangement of its cells, and acinus formation is uncommon. The cells are polyhedral and characterized by abundant eosinophilic cytoplasm. A palisade pattern is not unusual. Certainly it has no resemblance to the present case.

DR. ELBERT DECOURSEY, San Antonio: Did you call that last case Hurthle cell carcinoma?

DR. GALL: Not carcinoma. It was an adenoma. As a matter of fact, I don't use the term Hurthle cell tumor, although—like reticulum cell sarcoma—everybody else does, I suppose.

Case 11 (Ewing Tumor)

Diagnosis.—Ewing tumor, scapula.

Contributors.—Drs. David Auld and Milton Smith, U. S. Air Force Hospital, Lackland Air Force Base.

History.—A 23 year old white man had pain in the right shoulder after an accident in 1954. The pain increased in severity in 1958. A tumor which involved the body of the scapula and the coracoid process was found.

DR. GALL: Two films are shown, one made in 1957 and the other shortly before a fore-quarter amputation in 1958. Will the radiologist discuss the findings please?

DR. R. W. EDLAND, Fort Sam Houston: The osteolytic defect in the scapula is apparent. In 1957 it appeared to be confined to the coracoid process. There was a suggestion of slight periosteal elevation and expansion of the coracoid. The next film was made approximately 12 months later. An extensive osteolytic lesion with a honeycomb appearance blends into the surrounding normal bone without a definitive boundary. There is expansion of the coracoid, a suggestion of periosteal elevation, and a soft tissue mass over the bone.

The diagnostic possibilities must include round-cell tumors of different types, such as Ewing's tumor, reticulum-cell sarcoma, multiple myeloma, lymphoma, or leukemia. In the differential diagnosis, infection, chondrosarcoma, fibrosarcoma, osteosarcoma, or a metastatic lesion must also be considered. I believe that these can all be excluded and that the lesion is a malignant one of medullary origin. Based upon the age of the patient, development of the lesion in one year, and suggestion of lamination in the region of the coracoid, the radiographic diagnosis of Ewing tumor is best, with reticulum cell sarcoma a close second.

DR. GALL: Are you convinced that this is an intramedullary lesion and does not affect the bone secondarily by extension from a soft tissue process?

DR. EDLAND: I believe this is a primary tumor arising in bone, that it is a malignant lesion, and that it involves the cortex secondarily.

DR. GALL: The lesion is obviously associated with spicules of residual bony substance, but it has broken through and is invading periosteal soft tissues and beyond. It is a highly cellular tumor and in some instances seems to penetrate into what appear to be synovial-lined spaces (Fig. 14a). The lesion is characterized by delicate fibrillar trabeculation in which are embedded large numbers of cells with rounded configuration. They have relatively little cytoplasm, and occasionally are arranged in glomeruloid pattern (Fig. 14b). This is more apparent than real, and probably reflects a pressure response to the trabeculation.

The neoplasm has a uniform pattern and everywhere fills the medullary cavity replacing pre-existing osseous substance.

Under higher power the cytoplasmic margin is ill-defined (Fig. 14c). In some areas, although probably artifactitious, there is a syncytial relationship in which the cells are not definitely separated from each other. The nucleus has a clarity of staining; nuclear substance is not heavily clumped as in the case of lymphocytes. Moreover, the nuclei have a more or less ovoid configuration. Focally there is much necrosis.

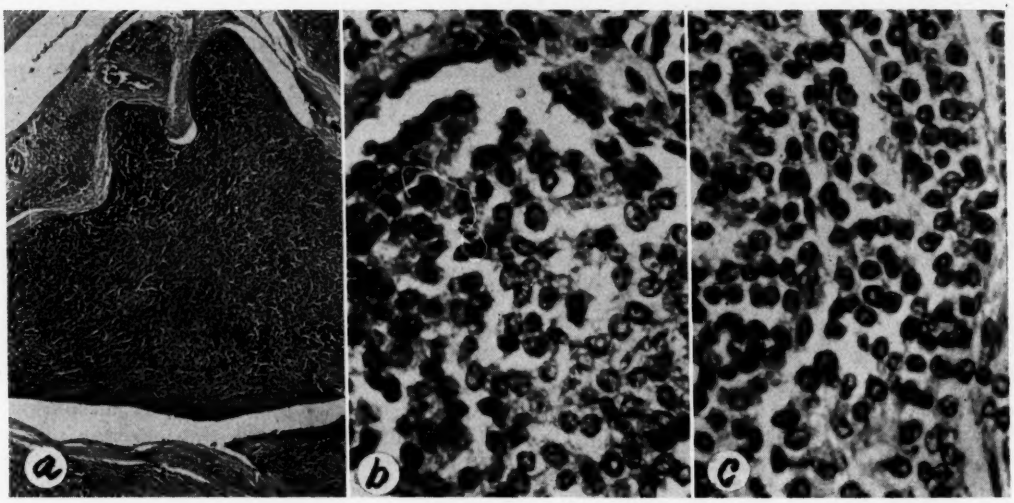

Fig. 14a. Case 11. (Ewing tumor, scapular). Extraosseous extension of the tumor invades synovia-like spaces, probably tendon sheath (x 20).

b. Case 11. Tumor cells are uniform in size with ovoid, chromatin-poor nuclei and scanty cytoplasm. A glomeruloid cluster is shown (x 800).

c. Case 11. Neoplastic elements resemble lymphocytes but nuclei are ovoid and the sparse cytoplasm when evident exhibits syncytial union (x 800).

In this instance, however, the necrosis does not result in islands of viable cells surrounding blood vessels, a common occurrence in Ewing tumor. The characteristics of necrosis are essentially nonspecific in this regard. In some areas, though, the cells do have a perithelial arrangement.

Submitted diagnoses.—Ewing's sarcoma, 76 per cent; reticulum cell sarcoma, 10 per cent; synovioma, 6 per cent; lymphoma, 4 per cent; osteogenic sarcoma, 2 per cent; malignant hemangiopericytoma, 2 per cent.

DR. GALL: The diagnoses favored Ewing's tumor predominantly, the diagnosis that I propose. Fourteen per cent believed that the lesion was a lymphoma, and 6 per cent a synovioma. These bear consideration, of course. The diagnosis of osteogenic sarcoma has little justification. I am surprised "hemangiopericytoma" didn't get into this seminar earlier.

The cells ordinarily seen in Ewing tumor have an ill-defined cytoplasmic character and a suggestion of syncytial arrangement. Note the ovoid nature of the chromatin-poor nuclei. Grossly, the Ewing tumor is bulky, and many growths of this kind show considerable hemorrhage and necrosis. The cut surface is moist and fleshy. Extension from the medullary cavity into soft tissues is not uncommon. The lesion is highly radiosensitive though not radiocurable. Here is a lesion of the clavicle, which was bulky originally. It was treated by radiation, apparently with complete resolution of the primary lesion, although the patient died of widespread metastases.

In contrast, here is a neoplasm of the manubrium which is also bulky, moist, and fleshy. It is grossly indistinguishable from Ewing tumor, but in this instance is a malignant lymphoma of the sternum presenting as an isolated primary tumor. There was no evidence of lymphoma elsewhere in this patient. The lesion was removed, and the patient has had no recurrence in 2 years. This is another tumor of the sternum which also proved to be lymphocytic lymphoma. This patient has survived 3 years after excision of the lesion.

Still another round-cell lesion for which this particular tumor might be mistaken is the neuroblastoma, a sympathicoblastoma. The cells have a pattern which approaches a glomeruloid arrangement, but the fibrillar structure of the lesion and pseudorosettes are recognizable despite the trabeculation and cellularity of the process. Here is another sympathicoblastoma containing pseudorosettes. Portions of this neoplasm would be distinguished from the Ewing tumor with great difficulty, but elsewhere the fibrillar matrix and the nerve ganglion-like elements clearly established the diagnosis. Of course these neurogenic lesions occur in a much younger age group, and the bony manifestations are ordinarily multiple and have the distribution of metastasis. One characteristic of Ewing tumor, however, is its capacity to metastasize to other bones.

Another tumor which may be mistaken for Ewing tumor is one form of synovioma. In this instance there are truncated spindle cells, but they may be ovoid and not too dissimilar from those seen in the present case. They may not show the spaces contain-

ing mucin although ordinarily they do so. It is the minute cleft formation or even acinar pattern with papillary frond production which aids in the recognition of synovioma. This is one of the spindle-celled varieties of the lesion in which cleft or synovial space formation is not a feature. The lesion is infiltrating muscle. Although in this instance there would be no difficulty in distinguishing the lesion from Ewing tumor, differentiation of other soft-part tumors such as fibrosarcoma or neurofibrosarcoma might not be as easy. On occasion, synovioma has excellent acinus formation with spaces lined by what look like epithelial cells, and there may even be synovial villous formation of a sort.

This is a curious tidbit; I used to think it represented another form of synovial tumor. At one time I classified it as "external malleoloma" because the first such lesion I saw as a resident appeared on the external malleolus, and there was no other designation to give it. It was semicystic and filled with mucin, and contained these peculiar cells, often with signet-ring appearance. The lesion was trabeculated. There were small islands of cells which seemed in some instances to be floating in the mucin. After seeing another growth of this type, I decided that it probably represented a peculiar form of synovial myxoma. Such lesions are not necessarily related to joints, but after all, synoviomas aren't either. As the years went by, I saw several others, but in the same period I observed a similar pattern in what proved to be skin appendage tumors. I am now inclined, therefore, to think that this is not a synovial lesion but a variant of skin appendage neoplasm with alterations similar to those seen in some salivary gland tumors.

Other lesions that might justify consideration among the small-celled tumors of this sort, particularly when they appear in soft tissues, would be embryonal rhabdomyosarcoma. This tumor is characterized by compartments bounded by narrow reticular strands and containing small embryonal cells. It, however, would not be a primary lesion in bone and ordinarily does not invade the bony cortex.

DR. LEO LOWBEER, Tulsa, Okla.: In view of the continued local pain after the injury, how would you testify in court about the relation of this tumor to the trauma?

DR. GALL: I would avoid testifying in court. How would you do it, Dr. Lowbeer?

DR. LOWBEER: I would try to apply the six criteria necessary to establish such a relationship. There are certainly cases of sarcoma on record which are reasonably attributable to injury. Rupert Willis says that one can neither confirm nor deny the possibility that there is such a relationship.

DR. GALL: This is why I would avoid court testimony. Any conclusion in this instance would be opinion alone.[47] In the present case amputation was performed in 1958. The patient now lives in Los Angeles, and is free of evidence of neoplasm, so far as is known, one year after operation.

DR. M. GREENBLATT, Fort Sam Houston: Will you comment on the entity of reticulum cell sarcoma described by Parker and Jackson? Is it distinct from the usual reticulum cell sarcoma?

DR. GALL: Parker and Jackson are among those who believe that the "reticulum cell" of reticulum cell sarcoma is a phagocytic cell, a histiocyte.[38] They described this as a tumor histologically indistinguishable from histiocytic lymphoma elsewhere, but occurring primarily as an isolated lesion in bone. Their experience and that of others has been that the prognosis in isolated neoplasms of this nature is much better than in the disseminated or extraosseous forms of the disease. That's about the only distinction between the two.

As to whether they are different tumors, this argument has prevailed ever since the lesion was first described. Some investigators believe that Ewing tumor is actually a reticulum cell sarcoma of bone.[12] Others maintain that they are not lymphomas but variants of eosinophilic granuloma. One should speak only from his own experience, and this is a rare tumor. I think I have seen no more than 5 of them. In one the course of illness was rapid, and the patient died with widespread disease which probably pre-existed the appearance of the lesion in bone. Another patient was treated by roentgen therapy alone with excellent response and had no recurrence for several years. Recently I learned that this patient was still alive, almost 12 years after the diagnosis was established. Three others were treated by amputation and had no recurrence, to my knowledge. Thus, the prognosis in this form of disease, as many have claimed, is infinitely better than in reticulum cell sarcoma when it is a systemic disorder. I begin to lean to the belief that this is not lymphoma but a localized form of non-lipid histiocytic hyperplasia.

DR. G. MANI, San Antonio: You stated that Wilms's tumor seldom, if ever, occurs in the older age group. Does such an age barrier exist for Ewing's sarcoma?

DR. GALL: No, I have seen Ewing's tumor in people in their forties. The age predilection is in the second and early third decades. Though uncommon, it is not sufficiently rare in older individuals to consider that an age barrier exists. I have no recollection of a case in a patient older than 50, however.

DR. J. CURIEL, Mexico City: How can Ewing tumor be differentiated from primary bone angiosarcoma?

DR. GALL: I suppose that in the undifferentiated endothelioma of bone with no vessel formation the distinction cannot be made. That's probably the reason Dr. Ewing called the tumor an endothelioma of bone, in the first place.[46] The precursor cell of this

lesion is not known. I am not certain from reading Dr. Ewing's writings, because at the time his papers were written the term "endothelial leukocyte" was the common one used for histiocyte among pathologists in this country;[34] in fact, they often used the expressions "endothelial leukocyte" and "endothelial cell" interchangeably, and I never was sure which of them Dr. Ewing had in mind. Do you have any knowledge of that, Dr. Andujar?

DR. J. J. ANDUJAR, Fort Worth: Dr. Ewing used endothelial cell or endothelial leukocyte or endotheliocyte as synonymous words.

DR. GALL: Thus, it may be that he thought the lesion was what subsequently was termed reticulum cell sarcoma of bone.

AUDIENCE MEMBER: I would like to ask the radiologist what he thought about the periosteal reaction.

DR. EDLAND: There was not the usual onion-skin appearance seen in Ewing tumor of long bone. However, in flat bones this type of subperiosteal lamination may not occur. I could not definitely demonstrate a breakthrough in the cortex; however, additional views revealed elevation of the periosteum, especially in the region of the coracoid. There was a soft-tissue mass in this area. It is not too unusual in Ewing's tumor not to be able to demonstrate the actual point of breakthrough in a flat bone.

Case 12 (Neurogenous Hamartoma)

Diagnosis.—Neurogenous hamartoma (?spina bifida).

Contributor.—Dr. G. J. Matt, Brooke Army Hospital, Fort Sam Houston.

History.—A 38 year old white man had had a congenital tumor of the back overlying the spine. At age 6 a "blood tumor" had been removed from this area. A large flat mass with a questionable recent increase in size was removed. The specimen was an elliptical segment of skin measuring 27 by 3.5 cm., with depth varying from 2 to 9 cm.; it weighed 620 Gm. Grossly the underlying tissue consisted of muscle, fat, and connective tissue; a portion was ligamentous in consistency. Throughout the specimen were several large, cystic spaces with smooth, shiny, pale opalescent lining.

DR. GALL: The lesion in this case consists of sprigs of ligament with which these ramifying fibrillar plexuses interdigitate. Although seemingly invasive, they actually come up to the ligament and are either disarranged or stop abruptly without invading (Fig. 15a). There are fibrous stroma, vascular spaces, and varying arrangements of fibrillar whorls (Fig. 15b). In some areas there are cells resembling gemistocytic astrocytes with flat, eccentric nuclei; little body or significant pattern in their arrangements are noted.

Submitted diagnoses.—Neurofibroma, 58 per cent; meningomyelocele, 10 per cent; ganglioneuroma, 6 per cent; neurilemoma, 4 per cent; plexiform neuroma, 4 per cent; teratoma, 4 per cent; malignant

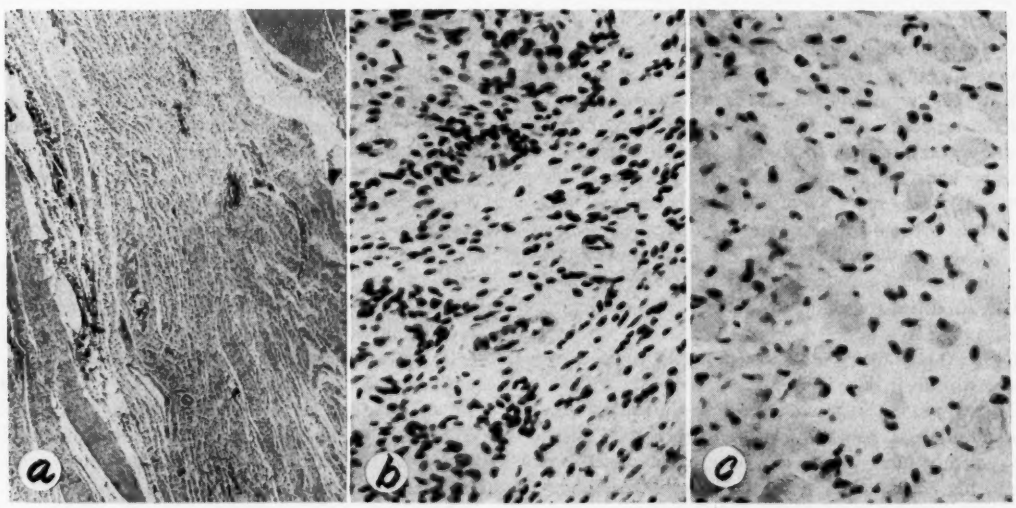

Fig. 15a. Case 12. (Neurogenous hamartoma). Loose fibrillar stroma interdigitates with but does not involve ligamentous structures (x 20).

b. Case 12. Fibrillar component of the lesion shows varying cellularity. Focal collections of nuclei have a whorl-like arrangement (x 250).

c. Case 12. Swollen cells resembling gemistocytic astrocytes may be mistaken for neurons (x 400).

tumor, 4 per cent; nodular fascial fibromatosis, 2 per cent; congenital glioma (hamartoma), 2 per cent; sclerosing hemangioma, 2 per cent; extra-abdominal desmoid, 2 per cent; benign hemangiopericytoma, 2 per cent.

DR. GALL: The diagnosis of ganglioneuroma was suggested presumably because of the condensation of fibrillar stroma and the astrocyte-like cells which were taken for ganglion cells (Fig. 15c). Plexiform neuroma and neurofibroma probably stem from the fibrillar component. I can't agree with the diagnosis of teratoma; the stromal whorls and twists are organoid, it is true, but this would not indicate origin from another germ layer. I see no basis for consideration of a malignant tumor except for the interdigitation between fibrils and ligament. Nodular fascial fibromatosis is usually a more edematous, alive-looking lesion than this, and it does not have a neurofibromatous pattern, as in the present case. Congenital glioma, I suppose, means the displacement of central nervous system. With this I agree, but that it is necessarily glial tissue I cannot accept. Extra-abdominal desmoid is essentially the same lesion as nodular fascial fibromatosis; sclerosing hemangioma has no basis here, nor has hemangiopericytoma.

I don't believe that this is a neoplasm. I am inclined to agree with those who consider it a hamartoma or tissue disarrangement related to meningomyelocele. Although I don't know it, I suspect that this patient had a spina bifida occulta and that the present lesion represents a hamartomatous overgrowth of meningeal tissues, such as may occur in the sac of a meningocele.

This diagrammatic representation of meningocele indicates that there may be all manners of structures in the subcutaneous tissue. The laminated corpuscular bodies evident in our sections, I thought, might be proliferations of remnants of arachnoidal villi. These, too, may appear in such a process. More often the general appearance in lesions of this origin is like that seen in the neurofibroma.

Here is a view of a subcutaneous nodule observed just back of the vertex of the skull in an infant. It proved to be ectopic brain and meningeal tissue completely dissociated from the skull. No gap in the calvaria was recognized. It probably represents a counterpart of what is observed in meningomyelocele with a spina bifida.

Here, for contrast, is the appearance of neurilemoma with its characteristic whorls and nuclear palisades. These were not observed in the present case. The diagnosis I propose, then, is neurogenous hamartoma possibly in association with an occult spina bifida.

AUDIENCE MEMBER: Are you using this term neurogenous hamartoma as an equivalent to sacrococcygeal teratoma?

DR. GALL: No. Hamartomatous overgrowth may be seen in the sacrococcygeal region, but they are not what I consider true teratomas. They contain only ectodermal tissue and are not of mixed germ layer origin. Conversely, teratomas also appear in this region.

AUDIENCE MEMBER: Do you believe that this was astrocytic material or just neurofibrillar?

DR. GALL: I think it is probably meningeal. Are you asking what I consider the exact origin of the

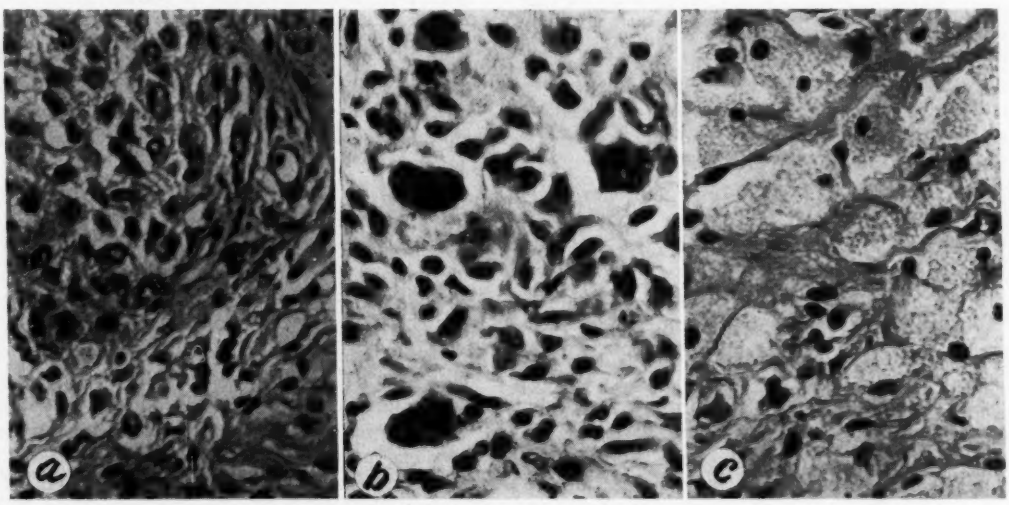

Fig. 16a. Case 13. (Xanthofibroma, knee joint). Among the fibroblasts may be seen polyhedral histiocytes (x 600).

b. Case 13. Giant cells highlight portions of this fibrous lesion (x 600).

c. Case 13. Foamy histiocytes provide a xanthomatous component (x 600).

little ball-like nests? I think they were of meningeal origin. They could be distorted arachnoidal villi. What the cell of origin was I really don't know. I do not think they actually represent astrocytes. I didn't see any astrocytic processes in relation to any of them.

DR. D. L. ROSENSTEIN, San Antonio: I saw things in there that I thought looked like fairly good caricatures of Meissner's corpuscle, and I wondered if this would influence you at all.

DR. GALL: I think those are the bodies that I just referred to. The choice as to which they resemble is free to all. Tissue culture and perhaps a battery of special stains might be helpful, but we have neither.

Case 13 (Xanthofibroma)

Diagnosis.—Xanthofibroma (synovial giant cell tumor), knee joint.

Contributor.—Dr. Gall.

History.—A 32 year old white woman had fallen and struck her right knee 10 years previously, following which she had had periodic episodes when the knee "slipped out of joint." Recovery from these episodes was spontaneous and prompt. Two years before examination she had noted a mass projecting below the patella. It was nontender and had grown slowly. Examination showed a soft, movable, 3 by 4 cm. mass projecting just below and lateral to the right patella. On exploration the mass was yellowish brown and was attached to the synovia of the joint. It was excised.

DR. GALL: The lesion has a classical fibrous appearance with polyhedral cells, recognizable as histiocytes (Fig. 16a). There are also deposits of brownish pigment, which proved to be hemosiderin. Some of the histiocytes assume a swollen appearance and have a foamy cytoplasm. There are also giant cells, not the Langhans type; their nuclei are clustered in the center of the cell (Fig. 16b). Parts of the lesion are composed almost wholly of lipid-filled cells with xanthomatous appearance (Fig. 16c).

Submitted diagnoses.—Giant cell tumor of synovia, 36 per cent; pigmented villonodular synovitis, 34 per cent; benign giant cell tumor of knee joint, 10 per cent; benign synovioma, 8 per cent; fibroxanthoma, 4 per cent; giant cell granuloma, 2 per cent; metaphyseal fibrous defect, 2 per cent; granular cell myoblastoma, 2 per cent; xanthogranuloma, malignant?, 2 per cent.

DR. GALL: The diagnoses submitted were closely related. I prefer fibroxanthoma or xanthofibroma as a designation, although any one of the others is acceptable and has been used by one or another authority. I don't think this is an anomalous growth, nor does it have the appearance of myoblastoma; these are not granular cells; they are foam cells. I see no reason to consider the lesion malignant.

This slide is an example of pigmented villonodular synovitis, the pathogenesis of which is in doubt. It is probably related to trauma and is a frequent concomitant of lesions which we are discussing. A close-up view of another case shows the cellular and edematous chocolate-brown synovia with villous processes barely perceptible at this magnification. The villous character is nicely illustrated by floating the synovia in oil. Microscopically, the processes are blunt or filiform, and there is an abundance of hemosiderin pigment. Giant cells are abundant in the stroma, just as in the present case; however, there is no localized major nodule or mass as with xanthofibroma. The latter probably represents a variant of synovitis. An identical lesion, of course, is the familiar "tumor" occurring in relation to digital tendon sheaths, the giant-cell tumor of tendon sheath origin. Its structure is identical with that in the present case, that is, giant cells, inflammatory cells, fibroblasts, foam cells, and pigment.

The diagnosis proposed, then, is xanthofibroma of synovia or "giant-cell tumor" of synovial origin. I don't like to call this lesion a tumor, and probably most of you don't either, because of the connotation that it may be related to giant cell tumor of bone. This is particularly dangerous when patients return with recurrence of tendon sheath lesions. Clinicians are inclined to consider this *prima facie* evidence of recurrent neoplasm and suspect malignancy. This, of course, is a dangerous implication because the giant cell tumor of tendon sheath origin, as in the case of the xanthofibroma, is not a neoplasm. It is a reactive lesion with pseudo-neoplastic overgrowth. It has no relationship biologically, and only remotely histologically, to giant cell tumors of bone.

WRITTEN QUESTION: What are your thoughts about calling some of these tendon sheath tumors "benign synoviomas" as the British do?

DR. GALL: These are not neoplasms, and therefore do not deserve such a designation. They are reactive, inflammatory, or abnormal reparative processes. I would have the same objection to synovioma as to the use of "tumor" in relation to these lesions.

AUDIENCE MEMBER: If one denies the existence of benign synoviomas as Jaffe does, this would be the only instance in pathology in which there is no benign counterpart to a malignant tumor.

DR. GALL: This is a matter of philosophy, I suppose. I would propose as the benign counterpart of the malignant synovioma the lesion I showed you earlier which was originally called benign synovial myxoma, providing you will accept it and do not consider the growth a skin appendage lesion, which it more likely is.

DR. D. L. GALINDO, San Antonio: What is the incidence of malignant growths in these xanthofibromas? Have you seen any?

DR. GALL: I have never seen a malignant variant of giant cell tumor of tendon sheath origin. These synovial lesions, I repeat, are not neoplastic. Has any one here? At the American Society of Clinical Pathologists' seminar last month, I believe Dr. Gretchen Squires said that she had seen one. I have seen frequent recurrences, and I have even listened to orthopedic surgeons suggest amputation simply because the term "tumor" is used. Amputation is not indicated with this process.

Case 14 (Chronic Inflammation, Pseudosarcoid Reaction)

Diagnosis.—Chronic inflammation with pseudosarcoid reaction, lymph node.

Contributor.—Dr. James L. Hansen, Brooke Army Hospital, Fort Sam Houston.

History.—A 53 year old white man had had recurrent episodes of generalized adenopathy, fever, and malaise. He thought that he had contracted some type of fever on a trip into Mexico in October, 1955, approximately one year earlier. The specimen excised was a large, soft lymph node measuring 4.5 by 3 by 3 cm., varying in color from white to brown. The cut surface was smooth but fragmented, as if the central portion were necrotic.

DR. GALL: This node is characterized by obvious enlargement and distortion of architecture, with a speckling visible at scanning power magnification giving the impression that there might be a tubercular lesion (Fig. 17a). This impression, however, is not borne out. Of importance are the remnants of subcapsular and trabecular sinuses. There are also a few scattered follicles, but they are ill-defined, and the architecture appears to be only partially retained.

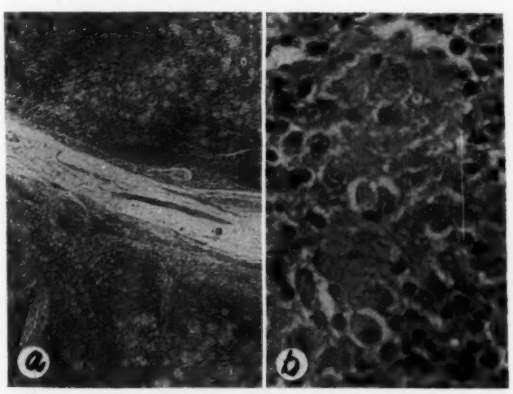

Fig. 17a. Case 14. (Chronic inflammation, lymph node). Architecture is obscured by speckling which reflects innumerable small collections of histiocytes simulating sarcoid tubercles but lacking spherical tubercular conformation (x 15).

b. Case 14. (Pseudosarcoid reaction, lymph node). Small, irregular collections of palely eosinophilic histiocytes lie among the cells composing the normal lymphocytic pulp (x 450).

On closer scrutiny the tubercle-like lesions are elongated rather than spherical; they are made up of histiocytes with palely stained nuclei (Fig. 17b). The latter vary in configuration and often exhibit prominent nucleoli, but are not unduly large and certainly do not resemble inclusions. There are occasional multinucleated cells of reactive type. The intervening lymphoid pulp, composed mainly of lymphocytes, also contains isolated histiocytes, occasional plasma cells, and rare eosinophils. These are the essential abnormalities. The important thing, I think, is that the large cells, even those with multiple nuclei, are not Sternberg cells.

Submitted diagnoses.—Reactive reticuloendothelial hyperplasia, 34 per cent; reactive hyperplasia (leishmaniasis, brucellosis, cat scratch disease, coccidioidomycosis, sporotrichosis, histoplasmosis), 15 per cent; lymphoma, 15 per cent; reticuloendotheliosis, 11 per cent; Hodgkin's disease, 11 per cent; Gaucher's disease, 6 per cent; infectious mononucleosis, 4 per cent; sarcoid-like change secondary to malignancy, 2 per cent; lipometabolic disorder, 2 per cent.

DR. GALL: With respect to Gaucher's disease, there is no lipid or PAS-positive material demonstrable in the phagocytes. A sarcoid-like reaction secondary to malignant disease is, to my mind, a wholly nonspecific lesion and neither diagnostic nor peculiar to lymph nodes in patients with neoplasm. My diagnosis in this case is chronic inflammation with pseudosarcoid reaction. I do not believe that it represents a lymphoma or a specific granulomatous lesion. It is really an exaggeration of a commonplace reactive hyperplasia.

The histiocytes, whether single or in clusters, may be disturbing by reason of the prominence of their nucleoli. The cells seem to burgeon out of sinuses where histiocytic hyperplasia is in process. The ultimate of such a lesion, which is not attained here, is the spherical aggregation of tubercular character. I shall not go into detail as to the differential diagnosis of tubercular lesions, as it is much too complex.

I would like to cite briefly a few other non-neoplastic reactive lesions that may occur in lymph nodes. This is an example of the case presented at the 1957 seminar of the American Society of Clinical Pathologists, in which there was obliteration of nodal architecture and an intermixture of lymphocytes, eosinophils, and histiocytes.[40] There were many giant cells which the casual observer considered neoplastic. By careful observation, however, these were recognized as reactive elements, conjoined histiocytes. This, you may recall, was the lesion termed "allergic" eosinophilic granulomatosis.

The main problem in lesions of this nature is the need for restraint on the part of the diagnostic pathologist. Alterations of this type must not be overcalled. The apparent obliteration of architecture may simply reflect a poorly fixed, or a poorly prepared,

node. Thus, the loss of architecture may be more apparent than real. The cells *per se* may have varied appearance but they aren't really neoplastic. In such instances pathologists are inclined to straddle, and say that a diagnosis of lymphoma is not justified, but could be entertained, or may call such a lesion premalignant. The examiner must be careful about such implications because a systemic disorder of any type never develops in most of these patients. When it does, the disorder is probably not the one seen in the node. It may be one of the lymphomas. Many pathologists speak of this particular lesion as pre-Hodgkin's or pre-lymphoma; I don't think it is. As methods of determining causes become more effective, it will be found that this reactive process is attributable to a number of different causative agents. For instance, I recently examined two nodes sent from Peru, said to be from patients with Oroya fever. In both, the lesion was identical with that in the present case. I don't mean to imply that the present case is an instance of bartonellosis, but that this type of reaction may be induced by many different agents.

The diagnosis of infectious mononucleosis was made by a few in this case. In this disorder histiocytic overgrowth may appear at certain stages. It does not occur, however, to the exclusion of the lymphoid cells peculiar to mononucleosis.[15] These appear in both the pulp and sinuses of the node. The latter are usually retained, so that the architecture is not destroyed. Moreover, histiocytic proliferation is not a diagnostic feature of infectious mononucleosis. It may be present but is always in combination with other more characteristic features.

In Hodgkin's disease and other lymphomas, there may be pseudosarcoid reactions in the lymphomatous nodes.[40] These are not neoplastic but represent a reactive or inflammatory overlay. Patients with lymphoma are, after all, susceptible to a variety of infections. Indeed, the same phenomenon may occur in nodes containing metastatic carcinoma. Probably you have observed them in axillary nodes removed with radical breast procedures.

To keep everything completely in the clear, this biopsy was made in November, 1956. The patient died in Oakland, Calif., in 1959, with what was reported to be disseminated lymphosarcoma. If this is true, the nodes we examined gave no indication of it.

AUDIENCE MEMBER: Was the node cultured?

DR. GALL: Not to my knowledge. Do you know, Colonel Bayliss, whether it was? This was submitted from Brooke Army Hospital.

COL. M. W. BAYLISS: No culture was made of the lymph node. Blood cultures were reported as negative.

AUDIENCE MEMBER: Was the fever or disease that he contracted in Mexico ever diagnosed, particularly with reference to brucellosis?

DR. GALL: Does anyone know?

COL. BAYLISS: Cultures for salmonella and shigella and agglutination studies, including those for brucellosis, were negative.

DR. GALL: A similar pseudosarcoid reaction may be seen in brucellosis as well. That's simply another indication that a variety of different causes may produce a commonplace reaction.

AUDIENCE MEMBER: I guess this case may have been sent to the Armed Forces Institute of Pathology. If so, brucellosis should have been detected in the spleen.

DR. GALL: I don't know whether this patient died in a military or a civilian hospital.

AUDIENCE MEMBER: He died in a Veterans Administration Hospital.

Case 15 (Metastatic Neoplasm)

Diagnosis.—Metastatic neoplasm, ?type, lymph node.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 34 year old white man was admitted to the hospital in November, 1955, with a mass in the right inguinal region of one month's duration. There was no pain, and the mass had persisted despite therapy with Achromycin and Gantrisin. The patient had had malaria in Burma in 1945. Review of body systems and physical examination were negative except for enlarged right inguinal nodes. Two lymph node masses were removed.

DR. GALL: I apologize for showing high power magnification immediately; the lower power photomicrographs I had were not the best. This photograph shows a readily evident subcapsular sinus; thus the architecture, although obscured here, is at least partially preserved. The prevailing cell is large and pale-staining, and at first glance appears to be a histiocyte; at least, it cannot be stated with any

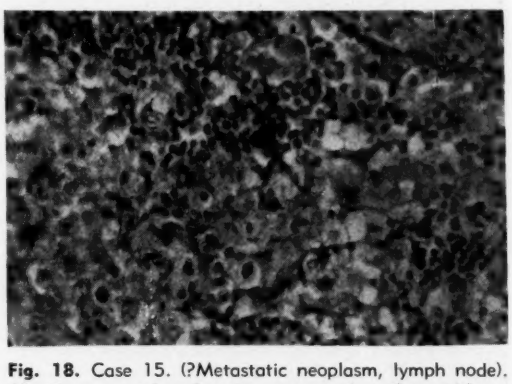

Fig. 18. Case 15. (?Metastatic neoplasm, lymph node). Abutting upon lymphocytes representing the residuum of nodal architecture are large, pale-staining cells with vesicular nuclei. These fill and distend sinuses. Mitotic figures are abundant (x 400).

degree of certainty that it is not. It lies, as you see, intermixed with lymphocytes, and occasionally clusters appear to abut upon a mass of lymphocytes constituting the residuum of normal nodal structure (Fig. 18). This is a better demonstration of well-preserved lymph node pulp and an abrupt transition to large pale cells with vesicular nuclei. The margin of a juncture point shows the two distinct types of cells bordering upon each other. Among the pale-staining cells there are many mitotic figures, some of which are bizarre and others multipolar.

Submitted diagnoses.—Reticulum cell sarcoma, 43 per cent; metastatic seminoma, 15 per cent; atypical hyperplasia, 11 per cent; metastatic carcinoma, primary site?, 7 per cent; metastatic liposarcoma, 5 per cent; metastatic melanoma, 5 per cent; malignant reticuloendotheliosis, 5 per cent; malignant lymphoma, 5 per cent; Gaucher's disease, 2 per cent; histoplasmosis, 2 per cent.

DR. GALL: This represents a condensation of the diagnoses submitted. Two or three slides might be necessary to list all of the opinions for your perusal. Most of you considered this a malignant lymphoma. I did not. Actually, the debate narrows to a selection of one of three possible diagnoses. Moreover, the points made in this case also apply in the next, Case 16. Is this malignant lymphoma, metastatic neoplasm, or reticuloendotheliosis, that is, a non-neoplastic proliferation of histiocytes? The distinction among these can be, as is obviously the case here, very difficult.

There is only one malignant lymphoma that I know to be characterized by an intermixture of cell types, and that is Hodgkin's disease. All of the others are characterized by a certain monotony of the neoplastic elements present. The diagnosis of Hodgkin's disease requires the presence of Sternberg cells, which are not evident. Thus, I do not believe that this is an example of malignant lymphoma.

The diagnosis "reticuloendotheliosis" ordinarily requires that the general architecture be preserved, certainly in much better fashion than in the present instance. The sinuses are the site of considerable proliferation, or there is some evidence of either metabolic activity (as in the lipid storage disorders) or the lack of it (non-lipid histiocytosis). The latter possibility exists in this case, but certain features cause me to consider it a metastatic neoplasm. One is that the cells that feature the lesion come up to the margin of the residual lymph node structure and stop abruptly. This line of separation is observed in metastatic neoplasm, and is uncommon in malignant lymphoma or histiocytosis. Some examples of this follow.

In this lymph node the architecture seems to be completely destroyed. Nevertheless, the abnormal cells stop abruptly at the residuum of lymphoid structure, as in the present case. Moreover, they gather around vascular channels with a perithelial pattern, a finding also evident in the present case. These are features encountered in metastatic tumor. Another characteristic of metastatic cancer which I did not note in this case is the presence of clusters of neoplastic cells in lymphatic structures, either in the nodal sinuses or in pericapsular lymphatic vessels. This is so rare in malignant lymphoma that when it is observed, the diagnosis of lymphoma is in doubt.

This is another lesion difficult to diagnose; fortunately it is uncommon. This specimen, taken from a patient with a lesion in the maxillary sinus, proved to be lymphoepithelioma. It had the characteristic sheets of syncytially conjoined, pale-staining epithelial cells and spotty collections of lymphocytes. The lesion was treated by radiation and responded well. The patient died after leaving our city. I was told later by a gleeful colleague that my diagnosis had been wrong because the autopsy showed malignant lymphoma. This would not be the first time that one of my diagnoses proved to be wrong, nor might it be the first time that patients with disseminated lymphoepithelioma were thought to have malignant lymphoma. The metastatic lesion may simulate lymphoma, and the sections must be examined carefully. Here is an example. The node shows an apparent loss of architecture, *ergo* lymphoma. There is a catch, though. This perinodal lymphatic tissue containing neoplastic cells, this perithelial arrangement of neoplastic elements, are findings inconsistent with the diagnosis of lymphoma. Thus, this is not malignant lymphoma but metastatic carcinoma consistent with derivation from the Regaud tumor of the sinus. This lesion may initially be evident with terminal widespread lymph node involvement and can well be mistaken for systemic lymphosarcoma.

In the present case I thought the diagnosis was metastatic neoplasm. I have no idea of its primary site. I am told this biopsy was procured in 1955. Dr. Severance, would you give a follow-up report on the case?

DR. SEVERANCE: This patient came to my office the other day because the family doctor was out of town. Some time ago—I think about 14 years ago—he had had mumps; therefore, he had an atrophic right testis. It was on this side that the diseased lymph nodes arose. At the time they were removed, disease involved not only the inguinal chain, but also the retroperitoneal area on that side. Extensive roentgen therapy was administered and the abdomen was also treated. The tell-tale brownish discoloration of the skin bore that out. There was no evidence of melanoma or moles, and I don't know about any of them having been removed. The patient is well, healthy, and working, and has had no recurrence that I could determine.

AUDIENCE MEMBER: Do you think he had seminoma of the testis?

DR. GALL: No, there is no indication of seminoma except for the background that might have led to it. The patient has an atrophic testis on that side. Dr. Mostofi has observed testicular teratomas that underwent spontaneous involution although metastases ensued.

AUDIENCE MEMBER: The follow-up information doesn't change your diagnosis, does it?

DR. GALL: No. Most of you thought that this was neoplastic also; does it change your diagnoses? I think I'll wait out the customary 5 year interval.

Case 16 (Acute Disseminated Histiocytosis)

Diagnosis.—Acute disseminated histiocytosis (non-lipid "reticulosis"), lymph node.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 37 year old white man with weakness and arthralgia had left inguinal adenopathy which became tender and which increased noticeably in size within 2 weeks. A red rash appeared on the thigh. The lesion was excised and roentgen therapy was instituted. The patient became nauseated and could not eat. He had daily fevers up to 102 F., extreme fatigability, and weight loss of 32 pounds, and again manifested enlarged lymph nodes in the inguinal area. One of the masses in this region measuring 3.5 by 2.2 by 2.5 cm. was removed.

DR. GALL: As in the previous case, it is apparent that despite some loss of lymph node architecture there is definite retention of part of it (Fig. 19a). Pulp and follicle distinction and a persistent subcapsular sinus can be seen. Here in an area of the pulp is an intermixture of cells which is not unlike that observed in the previous node (Fig. 19b). The disturbing cells in this instance, however, are more nearly recognizable as histiocytes (Fig. 19c). The cells are not as bizarre, nor as large or pleomorphic; and they do not show the vesicular nuclei evident in the last case. The juncture between the residual pulp and the apparently obliterated architecture is gradual, not abrupt. There are a fair number of mitotic figures, but they are banal and not bizarre.

Submitted diagnoses.—Hodgkin's disease, 69 per cent; malignant lymphoma, 21 per cent; metastatic carcinoma, 4 per cent; reticuloendotheliosis, 4 per cent; irradiation effect, 2 per cent.

DR. GALL: I classified this as a form of histiocytosis; you might wish to call it "reticulosis" or "reticuloendotheliosis." I did not think it was a malignant neoplasm. It is like the lesion seen in children in Letterer-Siwe's disease, nonlipid histiocytosis, or acute disseminated histiocytosis. Dr. Rappaport and I, in arguing this through to simplify the terminology, settled on "acute disseminated histiocytosis,"

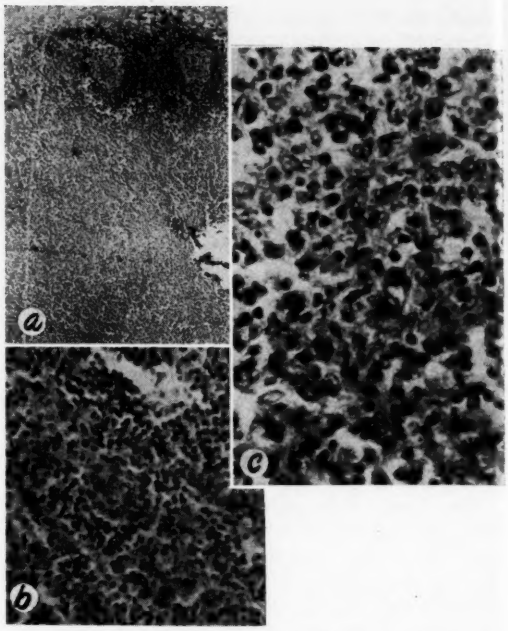

Fig. 19a. Case 16. (Acute disseminated histiocytosis, lymph node). Lymphoid follicles indicate partial retention of nodal architecture. The latter is obscured in much of the node by the marked histiocytic infiltration (x 14).

b. Case 16. Intermixture of lymphocytes and histiocytes contrasts with sharp line of separation shown in Figure 18 (x 275).

c. Case 16. Higher power view of field shown in Figure 19b. The intermixture of lymphocytes and histiocytes is readily manifest (x 400).

which essentially has a mixture of pathologic and clinical implications.[40] These lesions appear with varied patterns; in some there is an intermixture of cells in the pulp; in others they appear in the sinuses only and the architecture is retained.

Another case, followed for a considerable period, exemplifies some of the peculiarities that may be seen. This was in a 60 year old woman who had had preauricular lymph node enlargement of moderate degree and minor lymph node enlargement in other areas. A biopsy of a node made in September of the year I first saw her showed retention of architecture, but the sinuses were enormously enlarged and filled with histiocyte-like cells which were large and bizarre. There is a distinct, sharp margin between the sinuses filled with these cells and the pulp which retains its untrammeled lymphoid appearance. Three months later the patient had a large node in the axilla. She had been treated with small doses of radiation to the preauricular region, mainly to assure her that something was being done.

Because a definitive diagnosis had not been given originally, the axillary node was removed. This specimen still showed retention of architecture. The si-

nuses remained large and irregular, but the sharp distinction between sinuses and pulp was blurred. There was an indefinable blending as though the abnormal histiocytes were spilling out of the sinuses. The distinction between sinuses and pulp, however, was still manifest. There were occasional mitotic figures, but evidence of intermixture. I was concerned and said that this specimen was an example of histiocytosis of undetermined cause, but that evidence of aggression caused me to presage invasion. An examiner hates to make a diagnosis of premalignant alteration, particularly in a lymph node. In another 6 months I received another node biopsy. Sinus structure could still be seen, but the cells poured out into the pulp and had become bizarre. The patient died 6 months later. In the next view there is evidence of malignant lymphoma in both lymph nodes and viscera. Here is a section of kidney from this patient; there is obviously a neoplastic nodule of lymphomatous nature in its cortex.

These patients vary in the manner of termination of illness, much as is the situation in mycosis fungoides. In some, histiocytic proliferative activity continues and skin lesions develop; in others evidence of malignant lymphoma is seen, although this is rarely the case. In still others lipid may be seen in the cells, and an appearance not unlike that of eosinophilic granulomatosis may be noted.

The problem, of course, is to be certain that a malignant tumor is not missed at the outset, whether primary or secondary in nature. I'm not sure how that problem can be resolved with certainty. Dick Schuman, when at the Armed Forces Institute of Pathology, gathered a number of nodes not unlike that in the woman just cited, in which large sinuses were filled with histiocyte-like cells. He considered this a reactive process and said that he had never seen a case in which growth proceeded as though with neoplasm. I showed one of his sections to my colleagues. Immediately someone in the department brought another section in and asked, "Would you say this was the same thing?" It was. He said, "This is from the axilla of a patient with carcinoma of the breast, and all of the other nodes had metastatic carcinoma. Would you say that this isn't cancer?" This certainly constitutes a bug-bear in cytologic interpretation.

The lesions of lymph nodes in mycosis fungoides often exhibit similar histiocytic hyperplasia. Sometimes these remain confined to sinuses. They may, however, extend into the pulp with intermixture. As a matter of fact, the normal architecture may be completely lost in mycosis fungoides.[17] It is still possible to distinguish these lesions from lymphoma, however, because intermixtures of this nature do not occur in malignant lymphoma. I don't mean to imply that mycosis fungoides may not terminate in lymphoma. It may on occasion, of course, but not nearly as often as is thought. Dr. Severance, do you have a follow-up report on the present case?

DR. SEVERANCE: Yes. This man was first seen in 1952, when these lymph nodes were removed. Diagnosis was difficult at that time, as it still is. I made a diagnosis of malignant reticulosis because that was a popular diagnosis in my laboratory then. Dr. Hausman, who is here, was writing a thesis on the subject. We weren't satisfied with our own thoughts; therefore, we sent the specimen to Dr. A. P. Stout, who said, "I don't know what it is, but it isn't malignant."

Two years later the patient's doctor asked us to re-examine the slides. This time I could see Dorothy Reed cells, and I changed the diagnosis to Hodgkin's disease. The other day the patient again appeared in the doctor's office. He is still well and healthy and shows no lymph node involvement. I looked at the slides again, and could see those Reed-Sternberg cells; therefore, I made the same diagnosis.

DR. GALL: Thus proving the fallibilities of pathology. Does anyone have another name that he would like to propose for this condition?

AUDIENCE MEMBER: What is the usual prognosis in this disease?

DR. GALL: Most patients with the lesion which I have called acute disseminated histiocytosis die of the disorder, as in the case of Letterer-Siwe's disease in children,[33] ordinarily as the result of infection. They have leukopenia, and presumably a lower resistance to infectious processes. In rare cases there is termination as leukemia. In some instances, as I have said, evidence of intracellular lipid appears, there are increased numbers of eosinophils, and eosinophilic granuloma supervenes.[25] In a few cases there is apparent subsidence. Whether these are examples of the same disorder I don't know. The present case may be an instance. In contrast, I would like to put up a strong argument against discarding a diagnosis of malignant disease because a patient lives beyond the average survival period expected in a particular disorder. We forget that averages are made up of extremes and that there are always patients who live for longer periods than the average would indicate. Certainly, if this were a malignant lymphoma—and I presume the interval is 7 years at present—it is still within the range of acceptability. We have all seen patients with even highly malignant-appearing lymphomas who have lived 10 years.[44]

DR. D. L. ROSENSTEIN, San Antonio: I wonder whether other pathologists spend as much time as I looking for Reed-Sternberg cells in certain cases. Can you give us any practical hints that might be of assistance?

DR. GALL: I would not be particularly concerned about looking for Sternberg cells if the architecture of the node is intact. I doubt whether you will ever find Sternberg cells in otherwise intact lymph nodes.

Thus, the first criterion is disturbance of nodal architecture. Of course in the exceptional cases presented this afternoon, there is always a little bit of architecture left to disturb us. With obliteration of architecture, however, there are three essential patterns in which the Sternberg cell appears. These fit the three categories described by Parker and Jackson: the paragranulomatous type of Hodgkin's disease, the classical variety of Hodgkin's disease, and Hodgkin's sarcoma.[29] With respect to paragranulomatous Hodgkin's disease, the first impression received in examining these sections is that they are representative of a curious sort of lymphocytic lymphoma. Many appear to be comprised almost exclusively of mature-looking lymphocytes. With further search, however, an occasional eosinophil is seen. This should be a tip-off; once eosinophils are seen in a lesion of this nature, one should search assiduously for Sternberg cells. They may be hard to find. When I search for them, I mark each one I see immediately. The examiner may have to search for a long time afterward before turning up another one. When you look at a cell, identify it, and fail to find others like it, you may have the same sense of insecurity that I get. Therefore I mark them as I examine, and thus can always come back to substantiate my original observation. These cells in the paragranulomatous lesion, as I have indicated, may be rare.

In the classical Hodgkin's lesion, the pattern, of course, is pleomorphic. There are varying intermixtures of lymphocytes, plasma cells, histiocytes, fibroblasts, eosinophils, or even neutrophils and any combination thereof. When a pleomorphic pattern of this sort is seen, there is usually no difficulty in finding Sternberg cells. In the scirrhous variety often seen in the upper mediastinum, the lesion may be densely fibrous with only small smudgy nodules of lymphoid tissues sparsely distributed. In this instance Sternberg cells are uncommon, and on occasion only every third or fourth nodule may contain one.

Hodgkin's sarcoma is characterized by large numbers of Sternberg cells and a predominance of bizarre stem cells, so-called reticulum cells. The Sternberg cell is a large cell, approximately five times the size of a lymphocyte, or larger, but it does not attain the enormous size of the Warthin cells of measles or of many foreign-body giant cells. Its cytoplasm has a poorly defined boundary and is filmy, with a faintly granular, palely basophilic staining character. The nucleus, whether single, bilobed, reniform, mirror-imaged, or multilobed, always has a strikingly sharp nuclear boundary. It has scanty nucleoplasm, giving it a vesicular appearance, and characteristically contains a large blob-like nucleolus or inclusion. The nucleolus, in contradistinction to the nuclear substance, often stains in eosinophilic rather than basophilic fashion.

DR. J. CURIEL, Mexico City: Do you really believe in the existence of so-called Hodgkin's paragranuloma?

DR. GALL: Yes, I do, but with a reservation. It is a lesion with characteristic features, but its presence does not necessarily indicate that every other affected node in the same patient has the same type of alteration. There may be considerable variation. Patients with a growth of this type usually seem to have a longer survival. I emphasize, however, that a single node need not be indicative of the lesion present in other nodes. In many patients in whom this lesion is found in biopsy, the course of illness does not differ from that of other examples of Hodgkin's disease. If a careful study of multiple nodes is made at autopsy in patients with malignant lymphoma, variation of the type of lesion may be found in as many as 30 per cent of nodes examined.

WRITTEN QUESTION: Can you accurately predict the type of malignant lymphoma likely to appear subsequently in a patient with a node that has the histologic features of giant follicular lymphoma?

DR. GALL: This is of course like the question "When will you stop beating your wife?" The inference is drawn that every follicular lymphoma will ultimately terminate in another type of lymphoma. I do not ascribe to this belief. Dr. Rappaport and I were at loggerheads as to difference in concept. His contention is that all cytologic types of lymphoma may appear either as nodular (follicular) or as diffuse forms, and that the nodular form may ultimately be transformed into a diffuse lesion.[41] My own earlier concept—and I see no reason to change it with continuing experience and observation—was that the follicular lymphoma represents a distinct entity; that the cytologic alterations that occur in the nodules are a reflection of time relationship; and that over a period of time the cells tend to become less mature and the follicles or nodules tend to become less evident and less discrete.[24] In contrast, in a few of these cases (and I would hesitate to state the percentage) subsequent biopsy specimens may show a conversion of the lesion into one of the diffuse forms of lymphoma. Whether this is conversion or whether it represents a multiplicity of lesions in the same individual, I don't know. To come back to the question, I would have no way of predicting from the pattern at the time of a casual biopsy that, first, the patient would later have a diffuse type of lymphoma, and second, what type of lymphoma it would be.

In about 30 per cent of patients the pattern of lymphoma seems to change, whatever its original type, between the period of one biopsy and another or between biopsy and autopsy.[8] This may not be more than a minor degree of dedifferentiation with

transformation from a differentiated lymphocytic lymphoma to the undifferentiated form, or a Hodgkin's lymphoma to Hodgkin's sarcoma. Actually if multiple lymph nodes from patients at autopsy are not labeled as to source, an initial critical evaluation of these will show that in the same patient at any specific time, the pattern of lymphoma may vary in one-third of the nodes. Thus a single node is not necessarily indicative of the lesion in all other nodes.

Case 17 (Metastatic Glioma)

Diagnosis.—Metastatic glioma, lymph node.

Contributor.—Dr. Dale R. Snyder, Brooke Army Hospital, Fort Sam Houston.

History.—A 24 year old white man was operated upon in March, 1958, for an intracranial lesion which was diagnosed "glioblastoma multiforme of the left cerebral hemisphere." Afterward the symptoms of headache, vomiting, and poor vision abated. In September, 1958, a 1.5 cm. subcutaneous nodule with no apparent stalk appeared in the left temporal craniotomy scar; it was superficial to the temporal muscle. In December, 1958, a nontender lymph node in the left cervical region was excised.

DR. GALL: I was much happier about this before yesterday afternoon. Delicate trabeculations extending through the lesion embrace or pass through masses of large, pale-staining cells. The nuclei are bizarre and vary in configuration (Fig. 20a). The cells occasionally have a circlet arrangement, and many are in perithelial pattern. Everywhere, however, there are cells with elongated polar or spindle configuration (Fig. 20b). The curious fibrillar background and many mitotic figures should be noted.

The lesion is obviously malignant. Present as it is in a lymph node, it is a metastatic malignant lesion.

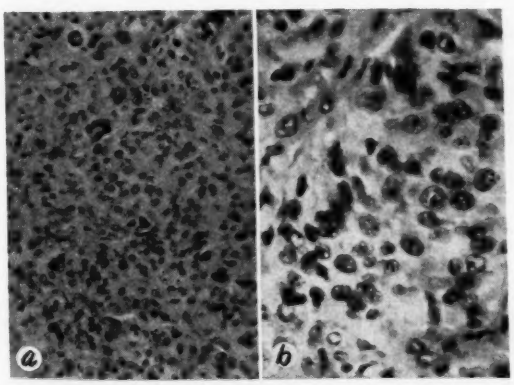

Fig. 20a. Case 17. (Metastatic glioma, lymph node). Pleomorphic pattern simulates that encountered in glioblastoma multiforme. Cells are poorly outlined and of nonepithelial nature (x 240).

b. Case 17. Poorly outlined neoplastic cells have varied nuclear appearance and cytoplasmic pattern (x 360).

Submitted diagnoses.—Metastatic glioblastoma multiforme, 49 per cent; metastatic carcinoma, 15 per cent; metastatic bronchogenic carcinoma, 9 per cent; metastatic meningioma, 7 per cent; metastatic melanoma, 4 per cent; angiosarcoma, 4 per cent; chemodectoma, 4 per cent; hemangiopericytoma, 2 per cent; malignant schwannoma, 2 per cent; reticulosarcoma, 2 per cent; metastatic tumor, type undetermined, 2 per cent.

DR. GALL: Half of you considered this a metastatic tumor from the brain. Most of the remainder believed it to be a tumor arising elsewhere in the body with lymph node metastasis.

This patient died in February, 1959, 5 months after the lymph node biopsy was made. At autopsy, a pulmonary lesion was interesting.

First of all, this is an illustration of the brain tumor at the initial exploration. Most of you would agree that it has the appearance of glioblastoma multiforme; certainly I would have little doubt. It not only has the pleomorphism, the glial pattern, and the foci of necrosis, but also the vascular alterations and palisading so characteristic of spongioblastoma.

This section of the lung lesion is similar to that in the cervical node. This is a disturbing situation. There are multiple metastases in the lung. At this point a thickening and narrowing of the bronchus is manifest—a bronchostenosis. A section from this area is identical in appearance with the nodules elsewhere in the lung. The question, then, arises (1) whether this represents a glioma with multiple metastases to lymph nodes, lung, and even to the bronchus; (2) whether it is a bizarre and anaplastic bronchogenic carcinoma with metastasis to the brain; or (3) whether the patient had both a glioblastoma and a bronchogenic carcinoma.

My own choice is gliobastoma multiforme with extracranial metastasis. Certain sections near the bronchial lesion are disturbing in that tumor cells appear as nests within lymphatic and blood vessels. I am reassured, however, by reason of the fact that despite the narrowing of the bronchus and obvious infiltration of its wall, its mucosal surface is intact. This certainly would be unusual in bronchogenic carcinoma. The lesion is entirely beneath the surface epithelium. I confess, however, that this is open to challenge. It is of interest that all of the metastatic lesions were above the diaphragm. I think it would be unusual to have bronchogenic carcinoma with widespread metastasis that did not also reach the liver or adrenal. I welcome alternative proposals.

AUDIENCE MEMBER: Were any glial stains made?

DR. GALL: Yes, but they were unsatisfactory. Fibrils were not well shown. Did anyone give a more thorough look to those? Dr. Abul-Haj?

DR. S. K. ABUL-HAJ, Fort Sam Houston: Yes, many neuroglial stains were done, including Cajal,

Ortega, and Holzer's techniques, but they were unrevealing.

DR. GALL: I'm familiar with the many variations that may occur in bronchogenic carcinoma. I have never seen one of this pattern, but there is always a first time. When this man had his craniotomy, findings of the chest film were within normal limits. Isn't that true?

DR. ABUL-HAJ: Yes. There was no roentgenographic indication of a pulmonary neoplasm.

DR. GALL: There is sufficient similarity in the lesions in each area so that one would be hard put to say they were unrelated. The background is good for metastasis from the brain lesion. Extracranial or extra nervous system metastases from a glioma are rare, unless the patient has had surgical intervention.[50] That certainly was the case here. A dissemination of this order, however, is unusual in glioma. I rest on the horns of a dilemma; cytologically, I feel committed to glioma, yet good sense tells me it shouldn't be. I think I shall leave it to you.

DR. J. H. SISSON, Corpus Christi: What about primary giant cell carcinoma of the thyroid?

DR. GALL: I presume that autopsy included examination of the thyroid, did it not?

DR. ABUL-HAJ: There was nothing abnormal in the thyroid.

DR. GALL: The lesion doesn't resemble a neoplasm of the thyroid. The giant cells individually could, of course, be from any source, but the general pattern of the lesion did not resemble that of giant cell carcinoma of the thyroid.

DR. LEO LOWBEER, Tulsa: Did the original slides from the tumor in the brain show any proliferation of vascular endothelial cells?

DR. GALL: Yes. The appearance was characteristic of that seen in glioblastoma.

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Baby the Patient

Hospitals should show more patience toward their patients, even baby them a bit, a Swiss medical director has declared.

"An adult patient is in certain respects rather like a child," writes Dr. Fred Singelisen in *The Modern Hospital.* "He becomes dependent, reduced to the level of a child still dependent upon his mother."

Dr. Singelisen, director of Psychiatric Hospital at Wil, St. Gallen, Switzerland, points out that an ill person "is often in greater need of someone to lean on, more exacting, greedier for attention and more self-centered" than a child.

MEDICOLEGAL NOTES

Hypnosis Is Ruled Medical Practice

On December 7, 1960, the Court of Criminal Appeals of Texas, in the case of Roy Masters v. The State of Texas, ——SW 2d——, handed down a decision which will have far reaching effects in Texas and in other states. For the first time an appellate court had before it the issue of whether hypnosis constituted the practice of medicine. Although this decision will only be controlling on the courts in the state, there is no doubt but that this case will become precedent-making on a question of concern to the entire medical profession.

Roy Masters, an individual not licensed to practice medicine in Texas, was charged with the offense of unlawfully practicing medicine, and a trial resulted in his conviction upon this charge. The facts disclosed that Masters had been advertising in the local Houston newspapers concerning the benefits which could be derived from the use of hypnosis. Investigator Libby, of the Better Business Bureau of Houston, was requested to investigate Masters' activities. Libby attended a lecture at which Masters stated that he used hypnosis to cure ulcers and alcoholic and narcotic addiction, along with other mental or physical diseases or disorders. Subsequently, Libby called on Masters privately, and related a history of "blinding headaches, nausea, pressure behind the eyeballs, extreme weakness, and dizziness."

After questioning Libby about his health problems and marital status, Masters informed him that by the use of hypnotherapy he could cause the headaches to diminish and eventually alleviate the condition. Masters further informed him that it would be necessary to make an advance payment of $100 before starting the treatments. A few days later Libby returned and tendered a $50 check which Masters accepted. Libby then related that Masters:

> ". . . placed him in a chair, again questioned him about his family history and his medical background, and then told him to relax and suggested that his eyes were heavy, his eyeballs were being drawn upward, that his sleepiness would go deeper into a trance. Libby pretended that such was happening to him, all the time retaining full consciousness of what was going on about him. He stated he complied with Appellant's (Masters') suggestion that he raise his right hand and touch his forehead and then appellant began to tell him that his difficulty grew out of his hate for his father and that he should banish that hate from his mind and think only kindly of others, and that when he brought him out of the trance that Libby would have only blessed thoughts and 'think nothing but love and kindness toward the entire world,' that appellant admonished him to place his hand on his forehead each morning and evening and remember to forgive and forget and this would remedy his headaches. He stated that appellant then counted to four or five and told Libby that he was awake and instructed him to make an appointment for a future date . . ."

The court commented at length upon the testimony of a physician, who used hypnosis as a means of curing certain mental and physical disorders:

> "He testified that he never used hypnosis *until he had made a complete physical examination of the patient* and that he considered such an absolute necessity and that it was not safe for anyone to use hypnosis in an effort to cure unless such person had a background of medicine because by the improper use of hypnosis a patient might be made worse off than he had been before and might resort to suicide." [Emphasis supplied.]

The Court, after setting forth the definition of the practice of medicine, held that:

> "It is clear from the record in this case that appellant offered to treat a physical or mental disorder by a system or method and to effect a cure therefor, and that he charged money for his services; and so we hold the evidence to be sufficient to this conviction . . ."

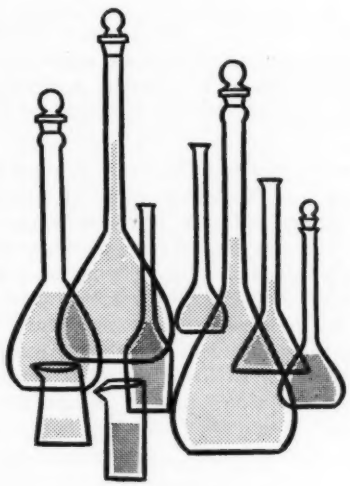
When the Court of Criminal Appeals affirmed the conviction of Masters for the unlawful practice of medicine, it represented the first time in this State or in the United States that an appellate court had passed upon the issue of whether the use of hypnosis constituted the practice of medicine.

This recognition by our courts that hypnosis constitutes the practice of medicine is of great importance. Of even greater significance is the protection this decision will afford the public by requiring that hypnosis be entrusted only to those who by training are best qualified to use it to treat or effect cures in patients with mental or physical disorders.

—PHILIP R. OVERTON, LL.B., Austin.

DRUG NOTES

Androgenic Steroid Drug Shows Anabolic Activity



ADROYD (Oxymetholone—Parke-Davis and Company) is a new steroid of the androgenic class. This new product possesses significant anabolic activity with androgenic potency quantitatively of a lower order than the activity characteristic of methyl-testosterone.

In 1935 the androgenic hormones were noted to possess a secondary physiologic action defined as *protein anabolic* activity. On a biochemical basis, an anabolic agent (also called myotrophic) promotes the storage of protein and generally stimulates tissues. The principal adrogenic hormone, testosterone, exhibits significant anabolic properties. Early clinical experiences with this hormone indicated that a product of comparable activity could be useful for treatment of persons debilitated by various metabolic and/or endocrine malfunctions, particularly if the androgenic activity could be minimized.

The development of 19-nortestosterone represented one of the first significant advances in this direction, since this 19-norsteroid exhibits greater anabolic activity than testosterone and weaker androgenic action. A classical contribution to structure-activity relationships was made by the eminent steroid chemist Djerassi. He observed that the removal of the 19-methyl group of the steroid nucleus of some androgens increased anabolic properties. Consequently, the 19-norsteroids have received considerable attention.

Chemists at G. D. Searle and Company have studied a series of 17-alkyl derivatives of 19-nortestosterone and have reported the ethyl derivative to be the most impressive. This compound demonstrated about the same anabolic activity of testosterone propionate but only one-tenth the androgenic activity, and, hence, has received extensive clinical acceptance under the proprietary name, Nilevar (G. D. Searle).

Another significant development was the work of Upjohn chemists which led to the observation that the anabolic activity of certain steroids may be increased by the introduction of a fluorine atom at the C-9 position. This major observation led to the development of the 9-fluorosteroid, Halotestin (Upjohn).

GLUCAGON (Eli Lilly and Company), a polypeptide extracted from the pancreas, exerts *hyperglycemic* activity. This product is indicated in patients with hypoglycemic conditions. Hypoglycemia may occur during insulin therapy. On a biochemical basis, glucagon shares the hyperglycemic-glycogenolytic activity of epinephrine, and in this capacity participates in the endocrine regulation of carbohydrate metabolism.

During early experimentation with insulin preparations, administration of crude insulin samples produced transient hyperglycemia, but this was soon followed by the expected hypoglycemia. The princi-

ple responsible for the hyperglycemic effect, referred to as the "hyperglycemic-glycogenolytic" factor, is Glucagon. The substance which originated as a biochemical curiosity from a theoretical standpoint is now commercially available as a pharmaceutical product.

In some respects there are similarities in the chemical composition of insulin and Glucagon, although they exert dynamically antagonistic activities. In other respects the biochemist has noted a few major differences in chemical constitution; namely, Glucagon has a molecular weight of 3482 and is almost lacking in cystine content. Furthermore, it contains methionine and trytophan within its structure, amino acids that are absent in insulin. Biogenetically, these two proteins are related to a certain extent, since both are produced by pancreatic tissue: Insulin by the beta cells and Glucagon by the alpha cells.

CORTICOTROPIN (ACTH, Acthar, Cortrophin) was introduced in 1949, and *New and Non-official Drugs* recognizes this product as "a preparation of the principle or principles derived from the anterior lobe of the pituitary gland of slaughter-house animals, which exert a tropic influence on the adrenal cortex." This product has received extensive therapeutic applications and has occupied the attention of biochemists. Recent progress in studies of the chemical nature and synthesis of this natural product prompts the following review.

Attempts at synthesizing ACTH have been made since the hormone was partially characterized chemically. In 1954, Bell and collaborators at American Cyanamid isolated a 39-amino-acid compound from hog ACTH and established the sequence of the first 24 amino acids. In 1956, the group deduced that this 24-amino-acid fragment represented the active structural component of the molecule.

More recently, an ACTH molecule with all of the biologic activity of the natural product was synthesized by biochemists at the University of Pittsburgh School of Medicine. This significant contribution will facilitate understanding of the biologic activity of ACTH. For example, the pituitary gland's functions may be clarified, allowing more comprehensive knowledge of biogenetic mechanisms and of the factors that stimulate the adrenal cortex. Eventually, chemical modifications of ACTH may give rise to analogs with different biologic properties and may enable correlations between chemical constitution and biologic activity. The same synthetic techniques may provide a basis for synthesis of other biologically significant polypeptides.

—JAIME N. DELGADO, Ph.D., and
LEE F. WORRELL, Ph.D.,
College of Pharmacy,
The University of Texas, Austin.

Austin Medical TV Panel Attracts Wide Interest

"If a person has an insurance policy, is he charged the same as a person not having an insurance policy?"

"Why do doctors charge for telephone conversations?"

"Why do not the doctors specify the medicine by a patent name rather than prescription so patients can buy it cheaper?"

Such questions as these were submitted recently to a new Austin television production, "Tell Me Doctor," sponsored by the Travis County Medical Society.

Although many more questions were submitted than could be answered on the first program (entitled "What Price Medicine?"), the show gives physicians, pharmacists, and hospital representatives a chance to answer apparently legitimate complaints, to clear up public misconceptions about the medical profession, and to do a public service in the discussion of health problems. Questions not answered on the air are given mailed replies by the county society public relations committee.

While the introductory program was a 30-minute one, succeeding panels are 15-minute productions, slated for alternate Sunday noons over station KTBC-TV.

Program titles include "What About Poisons?", "What About Blood?", "What About Heart Disease?", "What About Advances in Heart Surgery?", "What About Obesity?", "What About Immunizations?", "What About Tetanus Immunization?", "What About Our City Hospitals?", "Why a City Health Department?", "What X-Ray Will and Won't Do," and "What About Arthritis?"

Panelists are Travis County doctors; moderator, society executive secretary Roy J. Cates.

Blue Cross Campaigns Against Car Deaths

In January, Blue Cross-Blue Shield of Texas intensified a campaign to fight against waste of American lives in automobile accidents, the nation's third greatest killer (exceeded only by the number one cause of death, heart disease, and the number two cause, cancer).

Blue Cross mailed more than 500,000 safety reflector emblems for the rear bumper of members' automobiles, and urged members to join the fight against automobile deaths.

According to latest annual figures, 15,100 individuals were killed in automobiles nationally at a cost of more than $6,000,000,000. In Texas, 2,453 persons were killed.

Postgraduate Courses

Medicine and Surgery, Temple, March 5-7.—Scott and White Clinic, Temple, will hold its ninth annual Postgraduate Conference in Medicine and Surgery on March 5, 6, and 7. Practical aspects of medicine and surgery will be presented through clinics and open discussions. Credit will be given for 18 hours through the University of Texas Postgraduate School of Medicine to the Academy of General Practice. The registration fee is $25. Further information may be obtained by writing Scott and White Clinic at Temple.

Booklet on Aging Parents

Copies of the 19 page booklet, "When Our Parents Get Old," is available free of charge by writing the Metropolitan Life Insurance Company, Health and Welfare Division, Dept. 547-TH, 1 Madison Avenue, New York 10. The booklet discusses considerations to be taken into account when planning for mother or father—such matters as where to live, space problems, long-term illness, and accidents.

Hypnosis Legislation Urged

A call for legislation to control the application of hypnosis is being made in the February issue of *Playboy* magazine. Ken Purdy, contributing editor, warns in the article that hypnosis, improperly used, could present the free world with a danger he calls "mightier than the H-Bomb."

He cites misuse of hypnosis for political persuasion, hypnosis by television, and hypnosis-induced crimes as imminent possibilities.

AAMA Proceedings Available

Copies of speeches on medical office management and patient relations delivered at the annual convention of the American Association of Medical Assistants in Dallas last October are now available on request.

Copies can be obtained from Department PR-1, Lakeside Laboratories, Inc., 1707 East North Avenue, Milwaukee 1, Wis.

Editor Tells Dallas Doctors

Powerful Forces Challenge Physicians

HARRY COTTON, EXECUTIVE EDITOR of *Medical Economics,* recently warned members of the Dallas County Medical Society that three powerful forces are closing in on private physicians—the Federal government, hospitals, and the public.

Positive organization, Mr. Cotton said, is the only hope which medical men have of fighting the encroachment and in maintaining control of their economic future. By "organization" he said he meant "a truly adequate and nationwide voluntary health insurance system to ward off compulsory government schemes; a fullscale program, including appeals machinery, to forestall hospital domination and assure doctors' independence, and a plan to meet every valid criticism of private medical care."

President Kennedy, he told the group, is wedded to broad-scale health legislation that would pay surgical, hospital, and nursing home bills for some 12 million Social Security beneficiaries through an overall increase in Social Security taxes.

"The chances are the average citizen would take to government health insurance like a duck to water —just as he has to Social Security. And he wouldn't worry about its cost.

"If he thought about it at all, he would probably conclude the payroll deductions were pretty painless and that he was getting a bargain."

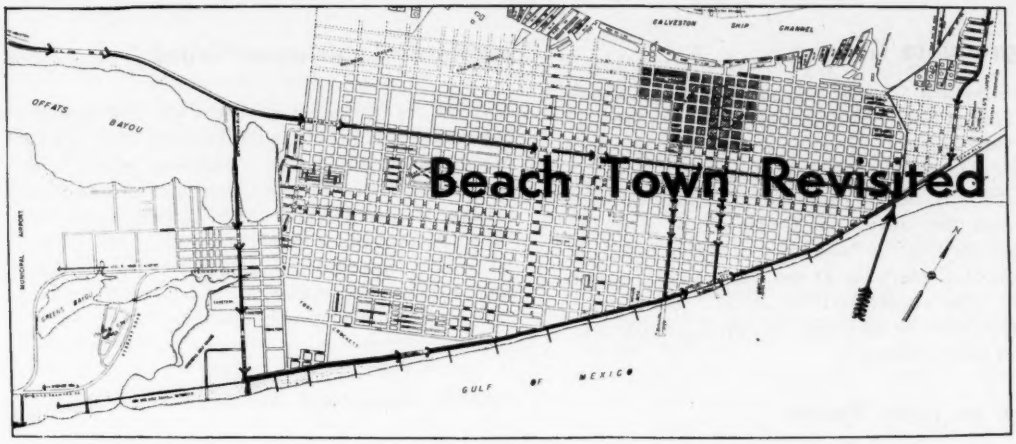
Cotton predicted that by 1970, the hospital will be the chrome-plated hub of the medical community, a big business offering omnibus services for diagnosis and treatment.

With the increase in hospital services, he said, will come the threat of an increase in hospital control over the physician.

"Organization men—in a hospital as elsewhere—are bureaucrats. They would standardize human beings so they're easy to handle. The professional men, on the other hand, must resist standardization."

"Without a doubt," Mr. Cotton concluded, "today's doctor is in a position of vulnerability, and among the causes are public indifference toward the profession, confusion about its performance and doubt about the sincerity of private medicine's dedication to the public interest.

"You are a minority but you can organize," he told physicians. "If you don't, you will have lost the opportunity to direct your own future."



Beach Town Revisited

SINCE MEMBERS of the Texas Medical Association last convened in 1956 for an annual session in Galveston, a new building has been added to the familiar sea wall area near the Galvez and Buccaneer Hotels—the Moody Convention Center.

The accommodations of this structure, plus those that were already available, promise to make the coming TMA convention—the eleventh to be held in the Oleander City—one of the finest ever. A slate of outstanding speakers has been announced; the complete program will appear in the March issue of the TEXAS STATE JOURNAL OF MEDICINE. All exhibit space for scientific exhibits has been taken, and space for technical exhibits is nearly gone.

Apart from activities that are related strictly to the meeting, Galveston offers the convention goer a variety of educational, cultural, and recreational features. A city rich in history, it bears the marks of recent industrialization, as well.

Sightseeing Mecca

Visitors who want more than "fun and sun" on the beach, at the swimming pool, or on the golf course can roam about some of Galveston's many sightseeing spots.

Among historic landmarks are a house at 1419 Avenue A, an interesting old foundation once referred to as the "House of Twelve Gables." According to local legend, it was built over the ruins of Jean Lafitte's "Maison Rouge," his home from 1817 to 1821. The founder of Galveston, Col. Michael B. Menard, built "The Oaks," a resident still standing at 1605 East Thirty-third Street. The home that Gail Borden erected is still in existence at 3427 Avenue O. Nearby, at Thirty-fifth and Avenue O, is the Powhattan House, built in 1847 of clapboard, where Borden perfected canned milk.

Aerial view of the University of Texas Medical Branch shows results of recent expansion.

Galveston's growth is apparent in this photograph of the familiar old sea wall with the new Moody Convention Center in center foreground.

Among buildings that have figured prominently in the city's religious life are the Bishop's Castle at 1402 Broadway, built in 1891 and purchased in 1924 by Galveston citizens of all faiths for the permanent residence of the Catholic Bishop. It was cited recently by the American Institute of Architects as one of the 100 most outstanding structures in the nation. The Ursuline Academy, at Twenty-seventh and Avenue N, is of Gothic design. Founded by seven Ursuline nuns in 1847, it served first as a monastery, then during the Civil War as a hospital. General Sidney Sherman died there.

The Tucker Home at 3524 Avenue P was built in 1837 by Samuel May Williams, secretary of Stephen F. Austin's colony and founder of Texas Masonry. The first legally chartered chapter of Royal Arch Masons in Texas was organized in Galveston on June 2, 1840.

The Moody Center will house most of the Association's annual session activities.

Guided tours by bus and by boat are offered. Tickets for these trips can be obtained at the hotels. Boats can also be chartered for deep sea fishing.

The Industrial Community

The city's major industries are listed as "the port, tourism, and the medical branch."

The port of Galveston is the oldest deep water port west of New Orleans on the Gulf of Mexico. The only major seaside city of the North American continent on a natural island, Galveston is unique, also, in having more tidewater shoreline than any other city in the state. Waterfront facilities allow commodities to be transferred from rail or motor to ship in as little as two hours. Further, because of the ten-mile long ship channel, with prevailing depth of 35 feet, vessels can reach the open waters within one hour from any dock in the port. Galveston is the nation's leading port in export of cotton and sulphur. Other important domestic and foreign produce handled includes grain and grain products, raw sugar, bananas, flour, tea, coffee, ores, and concentrates.

Tourism contributes from 12 to 17 per cent of Galveston's total economy. Among the features that attract numberless visitors the year around from throughout the nation are a semitropical climate, an abundance of beachfront hotels and motels, and a variety of recreational facilities. There are 32 miles of sandy beaches—the full length of the island—and a number of parks and supervised playgrounds. Galveston has two 18-hole golf courses.

Medicine is the biggest employer of people on

the Island of Galveston today, largely as the result of the growing proportions of the University of Texas Medical Branch, with its 970-bed hospitals; an enrollment of nearly 800 medical, nursing, and paramedical students, plus 187 interns and residents in training; and a faculty of nearly 200 with supporting hospital and administrative personnel. To nearly one-third of all Texas Medical Association members, the Galveston visit will be a return to a familiar campus, since 2,543 of the state's doctors in practice received their medical degrees there. They will find great expansion in the activities and programs of the campus. Some indication of recent growth and development is to be seen in dollar figures for the past 5 years, during which time gross income rose from $9,154,371 to the current $12,451,951 budget, and research gifts, grants, and contracts rose from $800,000 a year to more than $1,957,892 currently. A building and renovating program of $13,000,000 is underway.

The Medical Branch was founded in 1890, the year before neighboring St. Mary's Hospital. It has affiliations in several departments with that 275-bed institution. Also of medical interest in the Island are the Moody State School for Cerebral Palsied Children and the U. S. Public Health Service's Marine Hospital.

Hotels Accepting Reservations

Hotels and motels in Galveston are now accepting reservations for the annual session. A list of hotels and motels with mailing card may be found opposite page 112. Designation of alternate choices will speed reservations should substitution be necessary.

"We find that these stereophonic needles are twice as effective!"

Distinctive Scientific Program Offered for Annual Session

An eminent faculty of out-of-state guest speakers and Texas essayists will offer physicians attending the 1961 Texas Medical Association Annual Session April 23-25 in Galveston a distinctive scientific program.

Twenty-nine guest speakers, four of whom are from out of the country, and some 150 special speakers and Texas physicians are included on the roster. Section and specialty society presentations, refresher courses, and general meetings will provide the opportunity for scientific papers and discussions.

The session also will include scientific and technical exhibits, motion pictures, entertainment, sports, committee meetings, meetings of the House of Delegates, Woman's Auxiliary activities, alumni receptions and banquets, fraternity parties, and general meeting luncheons.

The Texas Academy of General Practice will offer a seminar during the meeting, participants to receive 5 hours of Category I credit. A Symposium on Transportation Safety and the Physician will be presented. Two pre-convention symposiums will be offered on Saturday, April 22—one on cerebral palsy, one on nuclear medicine.

Featured on the section programs will be the following: *Section on General Practice*—"The Treatment of Diabetic Feet," Dr. Harvey R. Butcher, St. Louis; *Section on Internal Medicine*—"Islet Tumours of the Pancreas," Dr. Walter C. MacKenzie, Edmonton, Alberta, Canada; *Section on Obstetrics and Gynecology*—"Present Day Knowledge of the Physiology of Uterine Contractions," Dr. Edward J. Quilligan, Cleveland, Ohio; *Section on Ophthalmology*—"Hemangiomas," Dr. John W. Henderson, Rochester, Minn.; *Section on Otolaryngology*—"Mechanics of Hearing as Related to Surgical Therapy of Deafness," Dr. George E. Shambaugh, Jr., Chicago; *Section on Pathology*—"Histochemical Findings in Hematologic Anomalies," Professor G. Astaldi, Tortona, Italy; *Section on Pediatrics*—"Congenital Hypothyroidism," Dr. Theodore C. Panos, Little Rock, Ark., and "The Medical Aspects of Cerebral Palsy," Dr. M. A. Perlstein, Chicago; *Section on Public Health*—"Longitudinal Studies in Chronic Diseases," Dr. Hugo Muench, Boston; *Section on Radiology*—"Radiation Dosage in Diagnostic X-Ray," Dr. Laurence L. Robbins, Boston; *Section on Surgery*—panel discussion on "Chronic Ulcerative Colitis," Dr. Robert J. Coffey, Washington, D. C., moderator, and Dr. Rupert B. Turnbull, Cleveland, Ohio, and Dr. J. Arnold Bargen, Rochester, Minn., panelists.

Among the attractions of the specialty societies will be the presentation of the paper of "Fluothane

Anesthesia in Early Infancy and Pediatric Neurosurgical Cases," by Dr. Kathleen Rains of Stockport, Cheshire, England, before the *Texas Society of Anesthesiologists.* Of interest also to anesthesiologists will be the paper of Dr. Paul R. Dumke of Detroit on "Cerebral Circulation and Anesthesia."

Other specialty society features will be *Texas Chapter, American College of Chest Physicians*—"Carcinoma of the Esophagus—Combined Surgery and High Voltage Therapy," Dr. David P. Boyd, Boston; *Texas Dermatological Society*—"Further Studies on Localized Myxedema and Progressive Exophthalmus," Dr. Arthur C. Curtis, Ann Arbor, Mich.; *Texas Diabetes Association*—"Unstable Diabetes," Clifford A. Gastineau, Rochester, Minn.; *Texas Society of Gastroenterologists and Proctologists*—"Cancer of the Colon Including Consideration of the Second Look Procedure," Dr. Owen H. Wangensteen, Minneapolis; and "Choice of Operation for Cancer of Rectum or Colon," Dr. Rupert B. Turnbull, Cleveland, Ohio; *Clinical Medicine Section, Texas Society on Aging*—"Management of the Elderly Cardiac Patient," Dr. William Proudfit, Cleveland, Ohio; *Texas Industrial Medical Association*—"The Use and Abuse of Antibiotics," Dr. David K. Miller, Buffalo, N. Y.; *Texas Neuropsychiatric Association*—"Traumatic Surgery of the Brain," Dr. Percival Bailey, Chicago; and "A Reevaluation of the Problem of Maternal Deprivation," Dr. Julius B. Richmond, Syracuse, N. Y.; *Texas Ophthalmological Association*—"Cataract," Dr. William H. Havener, Columbus, Ohio; *Texas Otolaryngological Association*—"Plastic Surgery of the Nose," Dr. Oscar J. Becker, Chicago; *Texas Orthopaedic Association*—"Non-union of Long Bones," Dr. Edwin F. Cave, Boston; *Texas Society of Athletic Team Physicians*—"Athletic Injuries—Some Observations on Prevention, Diagnosis, and Treatment," Dr. Thomas B. Quigley, Boston.

Dr. John B. Fawcitt of Stockport, Cheshire, England, will present his paper on "Roentgenology of Chest in Premature Infants" to a combined session of the Section on Radiology and the Section on Pediatrics.

Dr. Nicholson Gives Hospital as Memorial

Dr. Harold E. Nicholson of Wheeler has presented his hospital to a private corporation, as a memorial to his son, Dr. H. E. Nicholson, Jr., who died May 31, 1960.

Profits of the hospital, which was renamed in memory of Dr. Nicholson, Jr., will go to benefit needy students at Texas A & M College and Baylor University College of Medicine at Houston.

Dr. Nicholson, Sr., plans to remain in active practice in Wheeler.

New Insurance Program

The Texas Medical Association, in its endeavor to be of greater service to its members, has secured an outstanding major medical insurance program. This will be another valuable addition to its existing insurance programs.

After many months of studying the various programs available, the Committee on Association Insurance Programs selected the plan underwritten by Lumbermen's Mutual Casualty Company and developed with the aid of Mr. Charles O. Finley, as the plan which provided the broadest coverage.

It provides $15,000 of major medical insurance for the entire family. The member may insure himself, his spouse, and all unmarried dependent children to age 21. Each individual member of the family has $15,000 protection for each separate sickness or injury. Through a deductible feature (much as in automobile collision insurance) the new major medical plan provides that the insured takes care of the first easy-to-meet expenses; the policy then provides for 100 per cent of covered expenses incurred as hospital expenses and 80 per cent of all other covered expenses during a 3 year benefit period. Professional fees are not covered.

Because of the deductible and co-insurance features combined with the mass purchasing power of the Association, the cost of the plan is amazingly low. Once insured, the policy holder's coverage remains in force as long as he remains a member of the Association and pays his premium within the grace period, and as long as the plan remains in force.

A number of outstanding features included in the program sets it apart from other such programs, but the most important advantage is that there is no *termination age.* As long as the insured remains a member of the Association and pays his premium, coverage continues; most other major medical programs do not provide protection beyond age 70. All active members under age 70 will be insured regardless of past health history, provided application is made during the charter enrollment period and at least 50 per cent of the eligible members enroll. Complete information and an application form were recently mailed to all Association members. Readers are urged to send in their applications immediately so that the required minimum enrollment can be quickly attained and this important protection can be made effective at an early date.

President-Elect Dr. Harvey Renger, right, who presided at one of morning meetings, with two of the speakers, Dr. F. J. L. Blasingame, left, and Mr. Frank S. Groner.

—*Physicians News Service.*

1961 Conference for County Society Officials

Executives, Legislators Offer Hints To Solve Problems Facing Medicine

SUCCESSFUL AT ITS INSTALLATION was the first session held by Texas Medical Association on county medical society administration.

Implemented at the 1961 Conference for County Society Officials held in Austin on January 28, the new session presented basic duties of the president and of the secretary-treasurer.

Dr. Walter Walthall, San Antonio, vice-chairman of the Board of Councilors, presented "The President's Job," and Dr. Carlos E. Fuste, Jr., Alvin, secretary of the Board of Councilors, outlined "Duties of the Secretary-Treasurer."

Dr. Charles E. Oswalt, Jr., Fort Stockton, chairman of the Board of Councilors, served as moderator of a panel discussion on county society administration. Panelists were Dr. Walthall, Dr. Fuste, and Dr. Alford R. Hazzard of Austin, formerly secretary of Bastrop-Lee Counties Medical Society; Mr. Millard J. Heath of Dallas, Executive Officer, Dallas County Medical Society; and Mr. E. Maxwell Jones of Austin, business manager of Texas Medical Association.

More questions were asked by county medical society officers attending than could be answered in the question and answer period. The Executive Board approved of the program's success by voting to make it a continuing feature of the January meeting.

Despite poor weather conditions, 347 persons were registered at the 1961 Conference.

Blasingame: Tell Whole Truth to Citizens

"The AMA in '61" was the topic of the Executive Vice-President of the American Medical Association, Dr. F. J. L. Blasingame of Chicago.

Dr. Blasingame told Texas physicians that approximately two million people make up the health team in the United States today, including nine persons working along with each physician.

Outlining the scope of activities and programs which the American Medical Association offers doctors and patients, Dr. Blasingame gave special emphasis to medical ethics, publications, scientific programs, socioeconomic studies, field service activity, international health, communications, and legislation.

Regarding legislation, Dr. Blasingame pointed out that this portion of the AMA's program is the most widely publicized, while many of the other activities go unnoticed. "As a matter of fact," he said, "the AMA spends less than two and a half per cent of its budget on legislative activities."

According to Dr. Blasingame, "the cry is raised in

some quarters that the AMA is always *against* things and not *for* something. Such is not the truth; and those who say that the AMA is negative are either uninformed or deliberately misleading their audience."

"While such criticism is to be expected," he added, "and while the AMA must use every reasonable means in explaining its aims and objectives, an informed and dedicated membership is the best group to carry the message of AMA and medicine to the people of our country."

"The program of the AMA is sound and in the public interest. The health team of this nation is ministering—hour by hour around the clock—to the needs of the people. While physicians need to be concerned, there is no reason for frustration and compromise, if each physician will seek information and rededicate himself to the task of telling the truth—the whole truth—to the citizens of our country."

—*Physicians News Service.*

Dr. May Owen, Association President, with Dr. Charles E. Oswalt, Jr., Chairman of the Board of Councilors.

Owen: Think Clearly, Be Understanding

Referring to reports of near panic which occurred in some sections of the country because of a shortage of scientifically trained personnel, Dr. May Owen, President of Texas Medical Association, countered, "There may be a shortage of technically-trained people, but I believe it is more essential that we have people who are trained to think and to think clearly."

Dr. Owen reminded physicians attending the Conference for County Medical Society Officials that "the art" in practicing medicine is as important as the science.

"It is the many faceted relationship between physician-patient that should be considered the art . . ." Dr. Owen added. "Few of us even begin to realize the 'art' until our medical lives—short as they may be—are half gone. It would seem that the more science there is to help us, the less adept we become at acquiring the 'art.'

"I do not, for a moment," she continued, "suggest that we have rejected these ideals. Somewhere along the line, however, our sense of proportion may have become warped; the proper proportion between the art and the science can best be expected to accomplish what our ideals inspire us to attempt. Oh, yes, in our training we were periodically admonished to 'treat the patient and not just the disease,' but were we taught what this means? We were probably exposed to at least one book which treated human relations in medicine, 'The Art of Medical Practice,' but that perhaps, only as suggested outside reading."

Dr. Owen reported that now in some medical schools studies on behavior are included in the medical curriculum.

"The truly educated man," she said, "one whose

—*Physicians News Ser*

Participants in panel discussion on county society administration; from left to right, Dr. Carlos E. Fuste, Jr., Mr. Millard J. Heath, Dr. Walter Walthall, and, seated, Mr. E. Maxwell Jones.

education included the humanities and the behavioral sciences—would never be guilty of 'talking down' to the patient. The reason: he would be primarily and sincerely concerned with trying to understand the patient as a person, and in trying to make the patient understand him. Unrestricted intercommunication and mutual understanding and respect are the very foundations of a physician-patient relationship.

"Today's patient is grown up," said Dr. Owen. "He reads articles on medical subjects, and is, in fact, constantly bombarded by scientific reports in the press. A thinking physician will not ridicule what he may consider ill conceived, mistaken, or even ridiculous ideas which the patient has read, heard, or dreamed up. He will guard against deflating the patient's ego, or appearing to inflate his own.

"A little humility and a little humanitarianism will make it possible for all of us to give our patients the advantage of the art, as well as of the science, of medicine. This intangible force may be a vital—yes, even a determining factor in life and death."

Groner: Recognize Problems

Frank S. Groner of Memphis, Tenn., president of the American Hospital Association, summarized problems facing the voluntary hospital system, noting that a characteristic of a dynamic society is that the solution of one problem creates others. He felt that the same factors that contributed to great advances in the hospital field are responsible for the difficulties prevalent today. The future effectiveness of the voluntary system depends on the ability to recognize problems and adequately plan for their solution, he said.

Problems he cited were (1) employee relations, unions, collective bargaining, and strikes; (2) nursing and nurse education; (3) hospitals, physicians, and medical practice; (4) voluntary controls; (5) costs and charges; (6) Blue Cross; and (7) legislation and care of the aged.

Labor conditions, Mr. Groner said, were the major cause for increased costs of hospital care. During the past 10 year period, the hourly income of the average hospital employee increased by more than 100 per cent. The average for all employees in the United States during the same period was less than 60 per cent. He added, however, that hospitals still pay below the prevailing wage average.

Presenting the American Hospital Association's opposition to compulsory federal medical and hospital care for the aged, Mr. Groner listed three dangers of government control: the danger that the primary concern of the government becomes economic with the result that the care of the patient becomes secondary; the danger of overutilization; and the danger of compulsory health insurance for one group spreading to the entire population.

He expressed the view that "placing any part of health care under Social Security would alternately do one or both of two things—first, jeopardize the financial income of Social Security and possibly the whole nation—and secondly, add further taxation on our people."

Kilgore: "Take It Easy"

United States Congressman Joe M. Kilgore of McAllen, representative of the 15th Congressional District of Texas presented the talk, "MD's, MC's and the '60's" to the Conference.

Representative Kilgore admonished doctors to handle their relations with the press and legislators better. He advocated a "take it easy" approach at this time on the care of the aged legislation.

He pointed to the relationship between doctors and legislators as "regrettable," charging that doctors demand instead of request, insult instead of consult, and because of this often produce adverse reaction. He advised that they devote additional time in preparing their approach to legislators.

In addition to requesting doctors' thinking, advice, and counsel on all matters and not just on medical ones, Representative Kilgore declared that doctors should not be placed in a mold. He stated that he supported completely physicians' determination to maintain freedom of will.

After he had voted for the Kerr-Mills Bill (supported by the AMA) Representative Kilgore reported that he was attacked by physicians who charged him with capitulating.

Strube: I Am an Alarmist

W. P. Strube, Jr., of Houston, president of Mid American Life Insurance Company, warned physicians attending the Conference that "We are at war."

He deplored the fact that "so few intelligent business men seem to be alarmed" about the war communism is waging against them.

The key to fighting communism, he said, is to make an "accurate diagnosis." He condemned our current treatment of communism, pointing out that recognition of Red China would be disastrous. Instead, he said, support should go to Chiang Kai-shek and Formosa, "a beacon of light for the people behind the Iron Curtain."

He denounced the reasoning of individuals advocating recognition of Red China because there are 600,000,000 people within its boundaries. "There is

a difference between geographic and diplomatic recognition," he said. In addition, he noted instances where the United States is financing "atrocities against our own people" through foreign aid.

"I am an alarmist," Mr. Strube admitted. "I am alarmed that American boys are still languishing in Communist prison camps in North Korea. I am alarmed that the Communists can hold a Summit meeting in the United States of America uninvited."

Communist strategy has been mapped out, Mr. Strube noted, quoting part of a talk made by a Soviet official before the Lenin School of Political Warfare in 1931: "War to the hilt between Communism and Capitalism is inevitable . . . To win, we shall need the element of surprise. The bourgeois will have to be put to sleep, so we shall begin by launching a most spectacular peace movement on record. There will be electrifying overtures and unheard of concessions. The capitalist countries, stupid and decadent, will rejoice to cooperate in their own destruction. As soon as their guard is down, we shall smash them with our clenched fists."

While the Bible is the fundamental, the absolute, of American society, Strube said, communists believe in the fundamental that "anything that aids their absolute is the truth."

"Truth become relative once you forsake a fundamental," the speaker observed.

With this kind of philosophy, the communists' outlined strategy of conquering America is "encirclement plus demoralization equals surrender." He pointed to the movement of both of these elements against our society—communist domination in Cuba and demoralization of America's youth through lewd books on newsstands.

Jarvis: The Little Things

Dr. Charles Jarvis, San Marcos dentist, initiated the afternoon program with his humorous talk, "Only Skin 'Em Once."

Interspersed with humor, Dr. Jarvis' presentation contained a moral for attending physicians. He declared that Americans are "sick in the head . . . we're all neurotic."

Among other things, he noted that we are full of tensions, we have a sense of pretentiousness in which we lose our sense of values, we are egocentric and money minded.

Physicians, he said, have a public relations problem.

"Patients judge doctors by the little things—little smile, word of hope and cheer," he said, adding that they can't judge a doctor by his skills, so they must judge by the little things.

He emphasized the basic need of every patient, which says, "I want to be important."

"If you can make a person like himself a little better, he's going to like you better," he predicted, adding that the fundamental would be to treat each patient as if he were a son or a daughter and to ask the question, "How would God want me to treat this person?"

Symposium on Aged

A Symposium on Medical Care Programs for the Needy Aged held at the afternoon session featured four speakers who are involved prominently in trying to solve the problems of the aged.

They included Dr. F. J. L. Blasingame, executive vice president of the American Medical Association; John H. Winters of Austin, Commissioner of the State Department of Public Welfare; Senator Crawford C. Martin of Hillsboro, representative of the Twelfth Senatorial District of Texas, and chairman of the Governor's Committee on Aging; and Dr. M. O. Rouse of Dallas, vice-speaker of the House of Delegates of the American Medical Association.

Moderator for the symposium was Dr. Russell L. Deter of El Paso, vice-president of Texas Medical Association.

Dr. Blasingame reported that the major change provided by Congress in Public Law 86-778 (Kerr-Mills Bill) is the provision which authorizes an increase in federal contribution to states which have established vendor medical programs. Texas is one of the eight states which have not established such a program and in order to take advantage of the funds, the state would have to pass legislation to implement the bill.

"The amount of increased contribution a state can obtain is based on a rather complicated formula involving the states' relative per capita income and the average amount spent per Old Age Assistance recipient. As of October 1, 1960, states with vendor medical care programs received more federal reimbursements amounting to at least 15 per cent of the vendor payments, up to an average expenditure of $12 per recipient per month," Dr. Blasingame said.

As the law now stands, he noted, "this program was instituted to provide a sound and effective program of health care for the aged and to obviate the need for a compulsory mechanism under Title II of the Social Security Act. This intended purpose did not and will not, however, prevent the proponents of such a program from introducing it as a supplement to this law. I am sure that you recognize from political pronouncements during the recent campaigns that it will likely be offered again during the 87th Congress."

"I believe," he added, "that the medical profession

and its allies can implement the programs contained in Public Law 86-778, and thus provide medical care for those aged who need it."

Under the new law, Dr. Blasingame said, medical care is authorized for any person over 65 who needs help; any type of care can be provided as decided by the state; all fees are determined by local regulation; and the program supplements voluntary health insurance.

Contrarily, he noted, the Forand Bill would provide care regardless of need, but only to 60 per cent of persons over age 65; would authorize only hospitalization, nursing home care, and some surgical care; would call for fees to be promulgated by the Department of Health, Education, and Welfare; and would compete with and stifle voluntary health insurance.

Mr. Winters told physicians attending that Texas now has 700,000 persons over 65 and 223,000 persons receiving Old Age Assistance. If Texas passes the law to implement the new bill, the state would receive 75.79 per cent federal money to be matched to 24.21 per cent state money. This would mean up to $12 per person on the Old Age Assistance rolls. It would not, however, mean that each individual would receive an increase in grants.

Senator Martin, who has submitted a bill to the Texas Legislature which would put into effect the new vendor payment program in Texas, said, "Most of the difficulties of our aging population in Texas are the same as those existing in the other states. However, a very large difference was brought out effectively in our committee reports: Texas' aged citizens of today for the most part are men and women whose productive years were spent in the atmosphere of strong individualism in a relatively frontier country. While the aged of other states with a longer history of industrialization are familiar with social science organizations and organized programs, these structures are virtually unknown to most of our Texas people."

Added Martin: "My point is this. Greatest care must be exercised to keep programs and activities flexible to meet the diversity of needs and attitudes of the older people. Such programs must be administered as close to the local community as possible because of this diversity."

"All must be geared with one underlying purpose —to help older people to help themselves—to help them live independently in familiar environments as long as is possible."

"The basic goal," Martin said, "involves direct help to those who have already reached their later years, and it involves long-range constructive planning to eliminate needless dependency of the aged of future generations."

The problem now, the state senator said, is that "We have a host of aged people in the country today —in Texas—who need help now. They are aged now. They have led hard-working lives. They have earned modest livings for their families and managed to save a little—but the dollar they saved in the 1930's isn't worth a dollar today. Their children live in small city homes and have their own children. Most do what they can for their parents, but at today's inflationary cost of living one or even two paychecks just won't cover three generations."

An amendment authorized by voters in 1958 allows Texas to match Federal funds for a program of medical aid to persons receiving Old Age Assistance, Senator Martin noted, but another constitutional amendment would be required for Texas to broaden the program to include the elderly who are not recipients of Old Age Assistance but whose income is extremely limited.

Senator Martin reported that the Governor's Committee on Aging had urged that individuals in their younger years be encouraged to invest in health insurance policies that will carry over beyond the age of 65. He also reported that the committee recommended more stringent enforcement of the convalescent and nursing homes, that rehabilitation programs be instituted in local city-county general hospitals and elsewhere, and that regional psychiatric outpatient clinics be established to attack the problem of mental illness among the elderly.

Dr. Rouse concluded the Symposium.

"American physicians are most vitally interested in programs of health care for the aged, because they are the ones who provide this medical care most cheerfully and capably." he said. "Ours is a simple program of just accentuating the positive. For years we have gone quietly about our daily service of providing the highest quality of medical care for all our citizens, of which the elderly are a segment. The success of our efforts is shown by the very facts of the greatly lengthened span of life."

Dr. Rouse pointed to the AMA's Committee on Aging. "While the McNamara Committee was staging ostensible hearings in the homes of members, our Committee on Aging was holding regional conferences on aging throughout the country, open to all interested citizens."

He reemphasized the physician's interest in the total problems of the aged and declared that the medical profession "will consider it a pleasure to implement the observations made at county and state levels during the past two years' activities associated with the so-called White House Conference on Aging."

Executive Board Action In January Summarized

Texas Medical Association's Executive Board heard reports of the President, the Executive Secretary, and Councils on January 29 in Austin.

Following is a summary of action taken by the Board:

President's Advisory Committee.—Accepted for information by the Board was the report of the President's Advisory Committee which recommended the establishment of a fund for needy physicians. Mr. Donald Anderson, Assistant Executive Secretary, was asked to survey each county medical society on the need for such a fund and to report at the April meeting. Also accepted for information was the survey made by a special committee from the Board of Councilors on a seminar with newspaper reporters and managers.

Trustees.—Fiscal affairs of the Association remain in good condition. Once again, the Association's financial record has been written in black ink. The budget for 1961 has been prepared and the margin of revenue over expenditures is expected to be adequate.

Major expenditures continue to be in support of scientific activities. The top three items are $100,000 for the publication of the TEXAS STATE JOURNAL OF MEDICINE, $38,000 for the Memorial Library, and $30,000 for the Annual Session.

Seventy-one loans were made to students at the University of Texas Medical Branch at Galveston from the Dr. S. E. Thompson Fund, most of them amounting to $500 each. Loans for the year totaled $35,200. Trustees anticipate that applications for loans will increase this coming year.

Councilors.—Authorization was made to divide *Anderson-Houston-Leon Counties Medical Society* into *Anderson-Leon Counties Medical Society* and *Houston County Medical Society.*

The Board of Councilors investigated the possibility of providing a seminar on medical ethics for news writers at the 1961 Annual Session. This was prompted by a request made to the president by members of the press. After a statewide survey of newspapers, however, the Councilors decided that the Council on Public Relations and Public Service was doing an excellent job in improving relationships between the press and medicine. If press organizations should request speakers on medical ethics, it was recommended that they be provided. It was also felt that attention should be called repeatedly to the fact that reporters are welcome and invited to the orientation programs, to public relations programs, to Annual Session, and to the Conferences for County Medical Society Officials.

It was the opinion of the Board of Councilors that the Association should furnish its members a booklet describing the medical services available to the people of Texas. The book would include state agencies and a digest of laws pertaining to medical services in Texas.

It was voted to continue the orientation program for county medical society officers, which was initiated at the January 28 meeting.

Executive Secretary.—The past year has been the most active since the Speaker's Bureau and Visitation program was inaugurated in 1954. During the last 12 months, 127 visits and speaking engagements were completed.

The address, "The Best Medical Care for all Texans" was delivered to 93 civic clubs in 1960. Association representatives now are appearing before an average of three luncheon clubs per week.

The headquarters staff is now issuing news stories on important articles and editorials of lay interest which appear in the TEXAS STATE JOURNAL OF MEDICINE. Releases are being sent to 600 Texas daily and weekly newspapers.

Association membership exceeds 8,400. Intern and resident membership increased from 255 in 1959 to 288 last year. Membership has increased from 6,200 in 1950 to its current total.

Approximately 20 per cent of all members have attended an Orientation Program. More than 1,600 have attended since Orientation was stipulated as a requirement for regular membership in 1957. It has been necessary to drop only two physicians during the year for failure to fulfill the Orientation requirement.

The Memorial Library staff processed 3,941 reference requests during the past year. This is an increase of 23 per cent over 1959. The library has reported increases for 9 consecutive years. Reference requests have increased three and a half times, from 1,100 in 1952 to 3,900 at present.

The TEXAS STATE JOURNAL OF MEDICINE inaugurated a new format in January, 1960. Headlines are more attractive and varied. Color has been used increasingly. More illustrations and original drawings are being employed.

Two hundred and eighty-four physicians used the Physicians Placement Service during the year. This included 104 members who were seeking associates. Personal interviews were held with 114 physicians and 27 communities were surveyed.

More than 1,000,000 pieces of literature were

printed in the Association's printing shop and more than 800,000 pieces of mail were addressed to members.

The Harriet Cunningham Memorial Scholarship Fund has achieved its goal of $5,000. The fund will be used to provide a fellowship each year to a graduate student in medical writing at the University of Texas. It is anticipated that the first fellowship will be awarded in September.

AMA Delegates

Texas delegates to the American Medical Association took an active role in the deliberations of the House of Delegates of the American Medical Association at the 1960 Clinical Meeting in Washington, D. C., on November 28-30, 1960.

Delegates devoted their primary attention to three topics: (1) support of the concept of "free choice of physician"; (2) continuing physician participation in community studies on aging; and (3) methods of handling narcotic drug addiction.

Council Reports

Annual Session.—Twenty-nine guest speakers, four from other countries (England, Italy, and Canada) are committed to attend Annual Session in April. On Saturday, April 22, two symposiums, one on cerebral palsy and one on nuclear medicine, will be held, and on Sunday, April 23, a symposium on "Transportation Safety and the Physician," featuring Mr. Homer Garrison, director of the Department of Public Safety, and a Texas Academy of General Practice seminar, will be held.

It was announced that Dr. Jasper H. Arnold of Houston had been appointed to replace Dr. J. Edward Johnson who died in December, as chairman of the Committee on Scientific Exhibits.

Medical Jurisprudence.—The Council made the following legislative recommendations:

> Opposition to the proposed Professional Nurse Practice Act in its present form.
>
> Support of the proposed radiation control bill providing for the licensing of by-product, source, and special nuclear material. The bill was initiated by the Committee on Nuclear Medicine.
>
> Opposition to the proposed bill to license medical technologists.
>
> Approval of the proposed Texas Food, Drug, and Cosmetic Act.
>
> Support of the constitutional amendment which would be submitted to the voters through S.J.R. 8 and which would allow the "medically indigent" to be included in the federal-state matching funds for Old Age Assistance under the Kerr-Mills Bill.

The Council reported that time has been requested on the programs of the Texas Hospital Association and the Texas Private Clinics and Hospitals Association for a report on the practices resulting in certain perpetuating effects on the Veterans Administration program. The Council commended the Committee on Military and Veterans Affairs for its factual report, a talk and slides covering the VA Hospital Program. For the time being, the Council recommended that the program be given by members of the committee to medical groups only, and that hospital administrators be invited as guests of the medical groups to hear this presentation.

Public Relations and Public Service.—Complete results were not available on the survey on medical, community, and public service conducted by Texas Medical Association, but it was recommended that pertinent data from this survey be made the basis for a news release at a later date.

It was recommended for any county society with a television station to consider sponsoring and presenting a television series such as the current series, "Tell Me Doctor," sponsored by Travis County (See page 100).

Condensations of editorials and articles from the TEXAS STATE JOURNAL OF MEDICINE which have been sent to Texas newspapers were approved and it was recommended that they be continued. The headquarters staff was commended for this work.

Anson Jones Award entries numbered 9 in category I, daily newspapers in cities of 250,000 population or more; 7 in category II, daily newspapers in cities with less than 250,000 population; 4 in category III, weekly, bi-weekly, and semi-weekly newspapers; and 10 in category IV, magazines and trade journals.

Entries will be judged and will be announced at the Annual Session.

The Council approved the recommendation by the Committee on Aging which endorsed the recommendation on chronic hospital beds and nursing home beds presented by the Committee on Mental Health. This pertained to rapid tax write-off following construction by qualified private enterprise.

The Committee on Public Health endorsed the continued use of Tetanus-Toxoid and the use of seat belts in automobiles.

The Committee on School Health discussed final plans for the Fourth State Conference on Physicians and Schools to be held in Houston on March 19-20.

Medical Education and Hospitals.—Mr. Sloane Wingert, Executive Vice-President of the Medical Research Foundation of Texas, reviewed recent activities of the Foundation and called attention to an

editorial, "A Bumper Crop," which appeared in the TEXAS STATE JOURNAL OF MEDICINE in December, 1960. In it, physicians were urged to promote the foundation's growth by emphasizing to their patients the value of supporting medical research in the state.

The Council commended the Texas State Board of Medical Examiners, represented at the meeting by Dr. Charles D. Reece, on the Board's sincere efforts to solve problems involving rules and regulations governing foreign medical graduates who are interns and residents in Texas hospitals.

It was recommended that the President of Texas Medical Association appoint a special committee on Medical Careers and that the House of Delegates make it a standing committee.

Scientific Advancement.—The Committee on Mental Health recommended that the Association cooperate in recruitment of young people in careers in the medical field and that the Woman's Auxiliary be asked to assume an interest in this program. It was also urged by the committee that the Association leave the administration of the preventive program in mental health in the Texas State Department of Health until a decision is reached through further discussion.

The Committee on Cancer will investigate the laws on quackery in the state. The committee reported that it had reviewed the programs of various cancer groups in the state and the program of the cancer committee of the American College of Surgeons. It recommended that physicians be encouraged to participate in voluntary health organizations.

The Committee on Tuberculosis recommended that a copy of the pamphlet of "TB Control Resources in Texas," be sent to each county medical society for the use of its tuberculosis committee.

The committee viewed as entirely unacceptable the principles of incentive pay as set forth in Article II, Section 2c of the Legislative Budget Board Draft of the General Appropriations Bill for the fiscal years ending August 31, 1962, and 1963, and to limiting any such program to tuberculosis hospitals. The committee agreed to the principle of increased pay based on excellence of the program and requested that the Council endorse this stand. The recommendations were referred to the Council on Medical Jurisprudence.

Further regarding the proposal of the budget board, the committee recommended that the legislature make clear the responsibilities with respect to tuberculosis of the Hospital Board and the Texas State Department of Health in case finding and in follow-up of individual patients. This also was referred to the Council on Medical Jurisprudence for study and action.

The Executive Board approved the recommendation of the Committee on Rehabilitation calling for the Association to endorse the perpetuation of the Texas Rehabilitation Center in Gonzales, since it is the only center in Texas, until adequate facilities are available.

The committee asked support of a bill to revise the enabling act and a bill requesting emergency appropriation of $150,000 to be used exclusively for the comprehensive physical rehabilitation of severely physically handicapped Texas citizens. If this is done, $300,000 will be available each of two years from the federal government to augment these funds, making $450,000 available each of two years for this. Since the Vocational Rehabilitation Division of Texas State Department of Education is authorized to provide for rehabilitation, there would be no change in administration of additional funds. This proposal was referred to the Council on Medical Jurisprudence for consideration and for any action which might be indicated.

Medical Service and Insurance.—The Committee on Association Insurance Programs reported on the results of a questionnaire sent to members on November 16, 1960. Briefly, the survey on the Retirement Program indicated that a majority desires an Investment-Retirement Program without waiting for any federal legislation, and has indicated an investment of more than $100,000 per month. Replies in other fields of coverage showed a general contentment with the programs.

Regarding the question of members' satisfaction with the Association programs, 55 expressed dissatisfaction. Most of these were concerned with individual details of the present programs, and only 11 thought Association participation in insurance programs was too extensive or that insurance should not be sponsored.

On the Investment-Retirement program, the committee recommended that an insurance company be named to handle the conservative investments, a bank trustee and investment counsel to handle the equity investments, and a consulting actuary to coordinate the program. The results of the committee's investigation indicate that the Prudential Insurance Company of America, a local Texas bank, Merrill, Lynch, Pierce, Fenner and Smith, Inc., and Mr. William Bret are best qualified to perform these services. The program will be self-sustaining and cost the Association no money. It may, however, be necessary to request the Association to advance sufficient money to defray the beginning administrative expenses, this money to be paid back as soon as possible from administrative charges to each participating member. It may prove least costly for the Association itself to perform certain administrative functions of the program.

It was further recommended that a policy be established whereby the Association could advance the administrative expenses of the program as a loan. At a future date, when an accurate estimate of the amount of money involved is known, a specific re-

quest will be made to the Board of Trustees.

On the Life Insurance Program, which was reviewed, it was noted that Great American Reserve Insurance Company has offered the following changes: an increase of 25 per cent in death benefit for deaths occurring in calendar year 1961, and the selling of an additional policy identical to the present policy, including premium and 25 per cent increase in death benefits, to any member who desires it, subject to medical evidence of insurability.

On the Major Medical Insurance Program, it was noted that more than 200 applications have been received on the program since it was announced to members in January. The Committee on Health Insurance approved a pamphlet entitled, "Rockets to Inner Space," which the Health Insurance Institute will be asked to prepare for mass distribution in Texas.

A resolution was adopted requesting the House of Delegates to urge the American Medical Association to assume the leadership in the production of a film portraying the development and proper use of voluntary health insurance.

It was recommended by members of the Committee on Bracero Insurance and Medical Service that the committee be abolished since there have been no problems to come before the committee in the last two years and the members believe the bracero insurance program is on the way out.

Dr. Poole Tops TSBME Honor Roll in December

Dr. Mark Keller Poole of Bay City, a 1934 graduate of Johns Hopkins University, earned the highest grade—a general average of 91—at the December examinations of the Texas State Board of Medical Examiners.

The examinations were given at the Hilton Hotel in Fort Worth.

Other examinees receiving high grade averages were Mohammed Jamil Ahmed of Dallas, a graduate of King Edward Medical College, West Pakistan, 90.9; Sheppy John Silverman of Houston, University of Manitoba, 90.7; and Normand Macdonald Bremner of Dallas, Edinburgh University, 90.3.

Blue Cross Appeals To Texas Doctors

Blue Cross-Blue Shield of Texas has appealed to every Texas doctor to mail in to its Dallas offices a list of five persons known to him or her, who are 65 or over and considered in reasonably good health.

During the month of March, all persons whose names were submitted by physicians will receive enrollment material with a personal letter inviting them to make application for their choice of four types of Blue Cross-Blue Shield coverage. Applications mailed during March will be considered and coverage for those accepted will be effective May 1.

National League for Nursing Schedules Cleveland Meeting

The National League for Nursing will meet in Cleveland from April 10 to 14.

On April 10, the group will hear Dr. Ralph E. Dwork, director of the Ohio State Department of Health, and Mildred E. Newton, director of the School of Nursing of Ohio State University. Their topics will be "Health Needs—Whose Problem? Whose Responsibility?"

Panel discussions will highlight the April 11 meeting, and a luncheon will feature Louis B. Seltzer, editor of *The Cleveland Press.*

On April 12, Faye G. Abdellah of the United States Public Health Service will speak on "Meeting Patient Needs—an Approach to Teaching."

"Manpower—Challenge of the 1960's" will be the topic of a speech by Mrs. Alice K. Leopold, assistant to the United States Secretary of Labor. Ruth B. Freeman, immediate past president of the National League for Nursing, will speak on "Measuring the Effectiveness of Public Health Nursing Services."

Mrs. Victor Shaw, president of the National Conference on Social Work, will be guest speaker at a Community Participation Luncheon.

Dr. Samuel I. Hayakawa, professor of language arts, San Francisco State College, will present a talk, "Do You Know If You Are Communicating?" at a banquet on April 13.

Speakers presenting a session on "Patterns of Professional Education" are Dr. William J. McGlothlin, vice president of the University of Louisville, and Dorothy E. Johnson, associate professor of the School of Nursing at the University of California, Los Angeles. Dr. James P. Dixon, president of Antioch College in Ohio, will speak on "Community Dynamics and Nursing Education."

Dr. Ernestine B. Thurman of the National Institutes of Health and Dr. Calvin W. Taylor of the University of Utah will speak for the April 14, program, "Research to Identify Scientific Creative Talent."

More complete information will be published in the March issue of *Nursing Outlook.* Interested readers can also write the National League for Nursing, 10 Columbus Circle, New York 10, for additional information.

Houston Will Host Fourth School Health Conference

"The Emotional Growth of the Child" will again be the topic of the State Conference on Physicians and Schools, scheduled March 19-20 at the Rice Hotel in Houston.

The fourth state conference is being sponsored by the Texas Medical Association Committee on School Health in cooperation with the Harris County Medical Society and the Houston Independent School District.

Speakers include Harold Goolishian, Ph.D., of Galveston, director of Psychological Services and associate professor of the Department of Psychology at the University of Texas Medical Branch, whose topic will be "The Emotionally Disturbed Child, Recognition and Evaluation"; Dr. Irvin A. Kraft of Houston, assistant professor of psychiatry, Baylor University College of Medicine, "School Phobia"; Alberta Baines, Ed.D., of Houston, assistant superintendent of the Special Services Department of the Houston Independent School District.

Other speakers are John A. Ratliff, Ed.D., of Houston, principal of the John J. Pershing Junior High School, "Helping Teachers to Identify Emotionally Disturbed Children"; Dr. Dora Chao of Houston, assistant professor of pediatrics at Baylor University College of Medicine, "Recognition of Organic Behavior Problems with Their Treatment"; Dr. Grace K. Jameson of Galveston, assistant clinical professor of the Department of Psychiatry and clinical director of the Galveston Child Guidance Clinic, "Management of the Disturbed Child"; Dr. David Mendell of Houston, clinical associate professor of psychiatry at Baylor University College of Medicine and the University of Texas Post Graduate School of Medicine, "What Happens to the Emotionally Disturbed Child in Adulthood."

Participants in a panel discussion, "Emotional Health Problems of Pupils in Special Education" are Dr. Thomas P. Clarke III of Houston, clinical instructor of psychiatry, Baylor University College of Medicine; Miss Nancy Bringhurst of Houston, director of special education for the Houston Independent School District; Dr. Robert R. Jackson, Jr., of Houston, Texas Institute for Rehabilitation and Research and assistant professor at Baylor University College of Medicine; Sadie Aaron, Ed.D., of Houston, director of psychological services of the Houston Independent School District; Mrs. Velma Woods of Houston, chief psychiatric social worker at the Child Guidance Center; and Mrs. Mauryne Dailey, director of guidance for the Houston schools, who will act as moderator for the discussion.

The program will be concluded with problem clinics on the emotional adjustment of children, and a general assembly to hear reports, summary, and evaluation of the problem clinics.

Program chairman for the conference is Dr. Austin E. Hill and co-chairman is Dr. Abe Hauser.

Physicians, school administrators, teachers, law enforcement authorities, parents, and other interested persons are invited to attend the conference.

Gastroenterologists To Meet in Houston

The Southern Regional Meeting of the American College of Gastroenterology will be held Sunday, March 19, beginning at 9 a.m. in the Jesse H. Jones Library Building of the Texas Medical Center, Houston.

Host for the session will be the Houston Gastroenterological Society.

Among those participating in the program will be Dr. W. C. Arnold, Dr. Robert Nelson, Dr. George Morris, and Dr. Bela Halpert, all of Houston; Dr. H. J. Robert, Palm Beach, Fla.; Dr. Henry Laurens and Dr. A. C. Broders, Jr., Temple.

Chairmen at the meeting are Dr. Ralph D. Eichhorn, Houston, and Dr. H. B. Eisenstadt, Port Arthur, Governor of the College for Texas.

The Southern region of the organization includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

Texas Medical Association members are invited to attend. Copies of the program may be obtained from the secretary, American College of Gastroenterology, 33 West 60th Street, New York City 23.

Symposium on Fractures Set by Second District

Second District Medical Society will meet March 18 in Snyder, Dr. W. N. Jones of Snyder, Society president, has announced.

A major portion of the program will be a symposium on fractures to be presented by the University of Texas Postgraduate School of Medicine.

The University of Texas Medical Branch

Dr. R. P. Ahlquist, Medical College of Georgia, discussed "New Adrenergic Blocking Agents" on January 9.

Venereal Disease Is Seminar Topic

The annual Venereal Disease Seminar for the South and Southwest, sponsored by the U. S. Public Health Service, is to be held at the Statler-Hilton Hotel, Dallas, February 28, March 1-3.

"With the present dramatic increases in infectious syphilis, it has become apparent to us that physicians in Texas should have the latest information regarding the most recent developments in treatment, diagnosis, and epidemiologic techniques involved in controlling venereal diseases. These subjects will be discussed in detail at this seminar," says Dr. J. E. Peavy, commissioner of health.

Program topics will include "The Status of Syphilis in the United States," "The Society We Live In," "Problems of Children and Youth," and "Control Techniques That Pay Off." Panels and discussion groups will be utilized in addition to expert speakers in various fields. All those in attendance will be encouraged to participate in the discussions.

Pharmacy Board Meets In Houston Next

The Texas State Board of Pharmacy set June 5-8 as dates of its next meeting and Houston as the site, as it ended a January 30-February 1 session in Austin recently.

Examinations were given to 50 applicants for licensure, 18 reciprocal licenses were granted, and seven violation hearings were held.

During a business session, the board passed the following resolution: "It shall be deemed a violation of Section 17(d)(3) of Article 4542a, for any pharmacist or pharmacy licensed by the Texas State Board of Pharmacy who is engaged in the retail operation of a pharmacy to disseminate, personally or acting through agents or employees, by the use of any media of communication, his selling price for any drug or drugs which bear the legend: 'Caution: Federal law prohibits dispensing without a prescription,' to members of the general public or to practitioners of the healing art, except upon the specific request of a particular member of the general public or practitioner of the healing arts for such information."

Diseases in Nature Conference Scheduled

Scheduled April 27-28 at the Texas A & M College Memorial Student Center, College Station, is the eleventh annual Southwestern Conference on Diseases in Nature Transmissible to Man.

The conference is being sponsored jointly by the Texas State Department of Health, Texas A & M College, the University of Texas Medical Branch at Galveston, the University of Texas Southwestern Medical School at Dallas, Baylor University College of Medicine at Houston, and the Texas Animal Health Commission.

Further information on the conference may be obtained by writing to F. P. Jaggi, Jr., D.V.M., Conference Chairman, Department of Veterinary Public Health, Agricultural and Mechanical College of Texas, College Station.

Intracranial Tumors Is Symposium Topic

A symposium, "The Biology and Treatment of Intracranial Tumors" will be presented March 9-11 in the Jesse H. Jones Library Building, Texas Medical Center, Houston.

Sponsors are the Houston Neurological Society and the Department of Neurology, Baylor University College of Medicine.

The symposium marks the ninth annual meeting of the Houston Neurological Society.

Speakers will be Dr. Orville Bailey, Chicago; Dr. Jean Bouchard, Montreal; Dr. Isaac Costero, Mexico City; Dr. Sarah Luse, St. Louis; Dr. Charles Pomerat, Pasadena, Calif.; Dr. James Poppen, Boston; Dr. Abner Wolf, New York; and Dr. Harry Zimmerman, New York City.

Hospital Pharmacy Seminar Slated for February 24-26

"Truth and Science—Their Relationship to Health" will be the subject of Dr. Austin Smith, president of the Pharmaceutical Manufacturers Association, when he addresses the 13th annual Hospital Pharmacy Seminar slated for Austin's Commodore Perry Hotel Feb. 24-26.

The meeting is co-sponsored by the University of Texas College of Pharmacy and the Texas Society of Hospital Pharmacists. Dr. Smith was recently named the drug trade's "Man of the Year 1960."

Program topics for the seminar include "Salaries," "Utilization of Lay Personnel," and "Generic Names." Herschel I. Stine, business manager of Harris Hospital, Fort Worth, will speak on "The Fiscal Management of the Hospital."

★ County Societies

Nueces County Announces First Recipient of $1,000

Nueces County Medical Society named Kirby Gordon Barker, Jr., sophomore at the University of Texas Medical Branch at Galveston, as the first recipient of its $1,000 scholarship for medical students.

Formal presentation of the scholarship was made December 13 at a meeting of the county society.

The future physician was born in Kingsville on August 10, 1938. He attended schools in Corpus Christi, and Abilene Christian College.

In his letter advising the youth of his selection, Dr. J. R. Riley, society past president, said, "These scholarships are neither loans nor gratuities. Rather, they are offered as incentives to qualified young men and women to enter the field of medicine. The Medical Society hopes that recipients, when they are established in practice, will want to repay the sum, without interest, in order to help still others, who are deserving and interested in medicine, to seek the education needed for it."

Plans of the society are to offer a similar scholarship every year to a freshman entering medical school; and at the same time to continue such assistance for original beneficiaries who maintain high standings in their sophomore, junior, and senior years. Ultimately, the society expects to be assisting four students at a time, at a cost of $4,000 a year, which will be met by contributions of members.

County Society Briefs

Judge R. E. Thomason of El Paso, a son of a country doctor, was honored at the January 17 meeting of the *El Paso County Medical Society*. Dr. Frank Van Wagoner, principal speaker for the occasion, discussed plans for the new Thomason General Hospital and medical center to be built in El Paso and named for Judge Thomason.

Dr. Robert M. Moore, professor of the department of surgery of the University of Texas Medical Branch at Galveston, presented a paper, "Diverticulitis, Medical or Surgical?" at the February 15 scientific meeting of the *Harris County Medical Society*.

Chester H. Lauck, "Lum" of the former radio series "Lum and Abner" and current executive assistant of the Continental Oil Company, Houston, was guest speaker for the Inaugural Banquet of *Tarrant County Medical Society* on January 3.

Personals

Dr. Thomas Herbert Thomason, Fort Worth, was awarded the gold-headed cane of Tarrant County Medical Society for 1960. The cane was presented at a dinner meeting of the group at the River Crest Country Club.

Dr. G. V. Brindley, Sr., Temple, was honored recently by the staff of Scott and White Clinic and Hospital with a dinner and reception. Speaker for the evening was Dr. Alton Ochsner of the Ochsner Clinic in New Orleans, whose topic was "The Influence of Serendipity on Medicine." The occasion was the official retirement of Dr. Brindley from Scott and White Hospital after 50 years' service.

Dr. Arnold M. Weissler has been appointed assistant director of the Cardiovascular Research Laboratory and assistant professor of internal medicine at the University of Texas Medical Branch in Galveston.

Dr. Paul Geers, Whitewright, was recently elected president of the Whitewright Chamber of Commerce.

Dr. A. Fletcher Clark, Jr., of San Antonio was appointed to an unexpired term to the Northeast School District of San Antonio on December 20, 1960.

Dr. J. M. Buie, Hillsboro, is a candidate for mayor of Hillsboro. Election date is April 4.

Dr. May Owen, Fort Worth, President of the Texas Medical Association, has again been named a Headliner by the *Fort Worth Press*. She was honored along with eight other women in the New Year's Day edition of the newspaper.

Memorial Library

Books Newly Acquired

Bakulev, A. N.: Surgical Treatment for Mitral Stenosis, Moscow, Medgiz, State House for Medical Literature, 1958.

Carter, R.: The Gentle Legions, New York, Doubleday, 1961.

Castleman, B.: Clinicopathological Conferences of the Massachusetts General Hospital, Boston, Little, Brown and Co., 1960.

Ciba Foundation Symposium: Haemopoiesis, Boston, Little, Brown and Co., 1960.

Cosentino, R.: Atlas of Anatomy and Surgical Approaches in Orthopedic Surgery—Lower Extremity, v. 2, Springfield, Ill., Charles C Thomas, 1960.

Doshay, L. J.: Parkinson's Disease, Its Meaning and Management, Philadelphia, Lippincott, 1960.

Hart, H.: Autoconditioning, Englewood Cliffs, N. J., Prentice-Hall, 1956.

Haugen, G. B.: A Therapy for Anxiety Tension Reactions, New York, Macmillan, 1958.

Kluckhohn, C., and Murray, H. A.: Personality in

Nature, Society, and Culture, ed. 2, New York, Knopf, 1956.

Levine, H. D.: Cardiac Emergencies and Related Disorders, New York, Landsberger Medical Books, Inc., 1960.

Mezer, R. R.: Dynamic Psychiatry in Simple Terms, ed. 2, New York, Springer, 1960.

Modell, W.: Drugs in Current Use, 1961, New York, Springer, 1961.

Ramsay, W. M.: Luke the Physician . . ., Grand Rapids, Baker Book House, 1956.

Slaughter, F. G.: Epidemic, Garden City, Doubleday, 1961.

Smout, C. F. V.: Gynaecological and Obstetrical Anatomy and Functional Histology, ed. 3, Baltimore, Williams and Wilkins, 1953.

USSR Academy of Sciences: Problems of Evolution of Physiological Functions, Washington, Israel Program for Scientific Translations, 1960.

Wilson, C. C.: School Health Services, Chicago, National Education Association and American Medical Association, 1953.

Year Book of Radiology, 1960-61, Chicago, Year Book Publishers, 1960.

TMA Library Report

The staff of the Memorial Library of the Texas Medical Association, in 1960, compiled more bibliographies, answered more reference requests, and made more photographic reproductions of material not available in its own library than in any past year.

The library has several new films, and more are being added. Audio tapes on selected subjects are available for use. Film and tape listings may be obtained by writing the Memorial Library, Texas Medical Association, 1801 North Lamar Boulevard, Austin.

The 1960 library report follows:

Circulation

Reprints	15,757
Journals	
Single	6,417
Bound	1,018
Books	1,260
Photostats	1,144
Total	25,596

Reference Requests and Films

Reference Requests (Mail and Telephone)	3,941
Local Physicians, Students, and others	1,166
Films	1,177
Tapes	404
Bibliographies	112
Total	5,107

Gifts from Texas Medical Association Members

Tapes	57
Pictures	2
Journals	18,863
Bulletins	81
Bound Journals	92
Pamphlets	342
Reprints	465
Books	1,758

1 box woodcuts

Gifts were received in memory of the following people:

James M. Coleman, M.D.
J. Edward Johnson, M.D.
L. H. Leberman, M.D.
J. M. Woodson, M.D.
J. W. Rainer, M.D.
W. Herbert Hill, M.D.
S. T. Coleman, Sr.
Mr. Oscar G. Eckhardt

The Library also received monetary gifts from the Woman's Auxiliary to the Texas Medical Association and from the Woman's Auxiliary to the Tom Green Eight (Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher) Counties Medical Society.

Gifts to the Library

Dr. T. J. Archer, Austin, 108 journals, 5 bound journals.

Dr. Reginald A. Cooper, Austin, 374 journals.

Mrs. J. Edward Johnson, Austin, 82 books.

Dr. Robbie C. Jordan, Austin, 84 journals.

Drs. Carey and Georgia Legett, Austin, 190 journals.

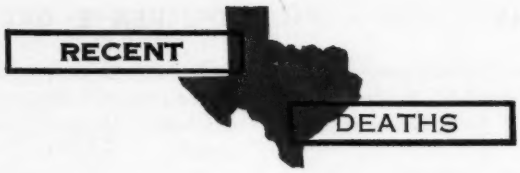
Dr. Nelson L. Schiller, Austin, 87 journals.

Dr. Albert F. Vickers, Giddings, 185 journals.

Films Newly Acquired

PREPARATION FOR CHILDBIRTH (1960) 16 mm., sound, color, 18 min. C-103.

A new film that shows the advantages of muscle toning exercises for ease in delivery and postnatal well being. The exercises are clearly and effectively demonstrated by a sample class of expectant mothers. The inclusion of both parents-to-be in several classes of the course emphasizes the importance for understanding the process of birth and the postnatal period, resulting in a more relaxed approach to parenthood and one of more understanding.



DR. S. ROSS JONES

Dr. Sullivan Ross Jones, Houston general practitioner, died October 1, 1960, at Houston of a coronary heart condition. Dr. Jones had retired in 1950.

He was born July 25, 1886, in Crawford, the son of George W. and Emily Jones.

He was a graduate of Baylor University, Waco, and the University of Texas Medical Branch at Galveston. His internship was served at Bellevue Hospital, New York City; Manhattan Maternity Hospital; and Providence Hospital, Waco.

During World War I, he served as a first lieutenant in the medical corps.

He had practiced at several Texas cities, including Pecos, Corpus Christi, Port Arthur, Waco, Brenham, Amarillo, Houston, and Huntsville.

Elected an honorary member of Texas Medical Association and Harris County Medical Society in 1946, he was also a member of the American Medical Association and of Alpha Mu Pi Omega medical fraternity, which was in existence in the early 1900's. He served one year as president of the group.

He was a former member of the Kiwanis Club, the Rotary Club, a member of the American Legion, the Masons, and the Baptist Church.

A bachelor, Dr. Jones is survived by his sister, Mrs. W. E. Farber of Houston, and a niece, Mrs. W. B. Wofford of Temple.

DR. S. ROSS JONES

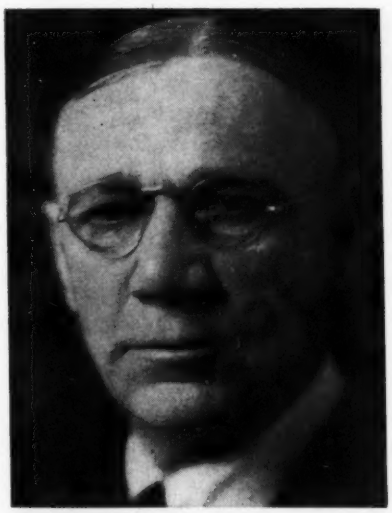
DR. KENT V. KIBBIE

Dr. Kent V. Kibbie, Fort Worth urologist, died August 21, 1960, in Fort Worth of arthritis.

He was born September 21, 1873, in Osceola, Mo., the son of Ida and Hamilton C. Kibbie.

He was graduated in 1898 from Fort Worth School of Medicine, which later merged with Baylor University College of Medicine. He interned at St. Joseph's Hospital in Fort Worth.

An honorary member of Texas Medical Association, he belonged to the American Medical Association, and was former president of the Tarrant County Medical Society.



DR. KENT V. KIBBIE

In addition, he belonged to the Knights Templar and the Moslah Shrine, the Lions Club, University Club at Fort Worth, Knife and Fork Club, the Recreation Board, and the Broadway Baptist Church. He was a former member of the School Board.

He was married to Miss Mary E. Tumlin at La Grange, Ga., on November 29, 1900.

During World War I, he had served in the United States Army as a captain. Since then, he had been a member of the Selective Service staff at Fort Worth.

Survivors include his wife of Fort Worth; his son, Dr. Horace K. Kibbie, Fort Worth physician, and one grandchild.

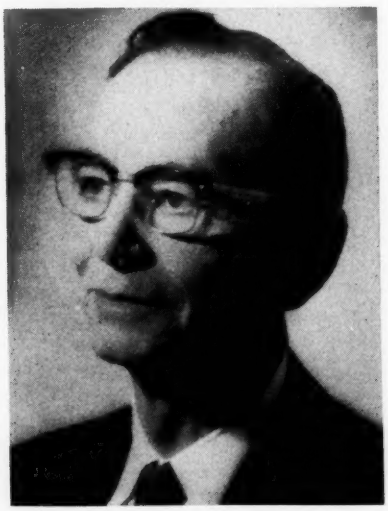
DR. C. F. WILLIAMS

Dr. Charles Floyd Williams, Abilene general practitioner since 1923, died at Hendrick Memorial Hospital there on November 23, 1960. Death resulted from carcinoma of the lung.

Dr. Williams was born September 3, 1896, at Oenaville, the son of G. M. Williams and Martha Jane (Brannum) Williams.

His preliminary education was obtained in the Merkel public schools, at Simmons College (now Hardin-Simmons University), and at Abilene Christian College. His medical degree was awarded by Eclectic Medical University at Kansas City in 1918. Following his graduation, he first set up an office in Waco, but returned to Merkel in a few weeks to assume his father's practice after illness struck the elder man, also a physician. In 1923, he moved to Abilene.

In 1933, Dr. Williams took postgraduate work at Cook County Hospital in Chicago.



DR. C. F. WILLIAMS

A member of the American Medical Association, the Texas Medical Association, and the Taylor-Jones Counties Medical Society, Dr. Williams also belonged to the Abilene Rotary Club, the Masons, the Shrine, and the Highland Street Church of Christ. He was twice president of the Texas Eclectic Medical Asosciation.

He was married September 10, 1924, to Miss Irene Cox of Abilene.

Survivors include his wife of Abilene and three nephews, B. B. Hendrix and Marion Rice of Abilene and Edwin Rice of Alhambra, Calif.

DR. REX E. GREER

Dr. Rex E. Greer, eye, ear, nose, and throat specialist from Amarillo, died November 7, 1960, at St. Anthony's Hospital. Death resulted from a heart attack.

Dr. Greer was a native of Woodford, Okla., where he was born January 13, 1907. He received his academic education at Central State College at Edmond, Okla., graduating with a bachelor of science degree in 1928, and his medical education at the University of Oklahoma School of Medicine at Oklahoma City, graduating in 1933. He served his internship at St. Joseph's Hospital, Denver, and his residency at Barnes Hospital, St. Louis, and St. Luke's Hospital, Cleveland, Ohio. Additional postgraduate work was taken at the University of Washington at Seattle, Northwestern University at Chicago, and Western Reserve University at Cleveland.

Dr. Greer served in the United States Air Force from 1934 until 1938 and from 1940 until 1946. He had previously practiced at Fitzsimons General Hospital in Denver, where his specialty was chest surgery, and at Midland. He moved to Amarillo in 1948 from Midland.

He was a member of the Texas Medical Association, the American Medical Association, the Panhandle District Medical Society (District 3), the Southern Medical Association, and the American Academy of Ophthalmology and Oto-Laryngology. In addition, he was a diplomate of the American Board of Otolaryngology. He was a member of the Methodist Church.

Survivors include his wife of Amarillo, the former Miss Blanche Fann, whom he married May 25, 1932, in Oklahoma, and a son, Donald Lee Greer, stationed with the United States Navy at Chula Vista, Calif.;

DR. REX E. GREER

two sisters, Mrs. Jess Dickson of Woodford, Okla., and Mrs. Ruben Steadman of Elmore City, Okla.; and a brother, F. G. Greer of Amarillo.

DR. CLEM M. CARRITHERS

Dr. Clem Milburn Carrithers, Houston general practitioner, died November 28, 1960, at North Houston Hospital, where he was a staff physician. Death resulted from cirrhosis of the liver, esophageal hemorrhage, and terminal cardiovascular failure.

Dr. Carrithers was born August 28, 1907, in Cane Hill, Ark. He was graduated from Austin College, Sherman, with a bachelor of arts degree in 1930, and from the University of Arkansas School of Medicine, Little Rock, with the medical degree in 1935. Interning at Robert B. Green Hospital, San Antonio, Dr. Carrithers practiced at Kenedy, Kingsville, Alice, and Bruni, before entering the United States Army during World War II. He served in North Africa and in the European Theater of Operations. Following his release from the Army, he practiced in Hebbronville from 1945 until 1950.

Since then, he had practiced in Houston, where he was formerly on the staffs of the Lockwood, Little York, and St. Elizabeth Hospitals.

He was a member of the American Medical Association, the Texas Medical Association, the Harris County Medical Society, and Nu Sigma Nu medical fraternity. He belonged to the Christian Church.

Survivors include his wife of Houston; one son, Milburn Lowell Carrithers, a student at the University of Arkansas School of Medicine; his mother, Mrs. A. B. Carrithers, a sister, Mrs. J. R. Wilkerson, and a brother, George Carrithers, all of Brady.

DR. CLEM M. CARRITHERS

DR. J. EDWARD JOHNSON

Dr. John Edward Johnson, Austin internal medicine specialist, died December 17, 1960, in an Austin hospital. Death resulted from cancer of the pancreas.

Dr. Johnson was born November 27, 1892, at Thalia, the son of William Luther Johnson and Nona (Martin) Johnson.

He received his preliminary education at Thalia and his academic training at North Texas State College, Denton, the University of Texas, Austin, and the University of Virginia, Charlottesville. The third school awarded his bachelor of science degree in 1920. His medical degree was conferred by the University of Texas Medical Branch at Galveston in 1925.

He interned at John Sealy Hospital, Galveston, and began his medical practice at Terrell and Wortham as a general practitioner. In 1928, he changed his residence to Mineral Wells, and in 1944, he moved to Austin, where he began his specialty in internal medicine.

He had been author of many articles and editorials in the TEXAS STATE JOURNAL OF MEDICINE.

Dr. Johnson was a member of the American Medical Association, the American Trudeau Society, and the American College of Chest Physicians; and chairman of the Committee on Scientific Exhibits of Texas Medical Association, former secretary and president of what is now the Palo Pinto-Parker-Young-Jack-Archer Counties Medical Society, former secretary and president of District 13 Medical Society, Councilor for a short while of District 13, and president of Travis County Medical Society in 1949. At the time of his death he was president of the Texas Tuberculosis Association.

DR. J. EDWARD JOHNSON

Dr. Johnson was a member and elder emeritus of Central Christian Church at Austin.

Survivors include his wife of Austin; three sons, Dr. J. E. Johnson, Jr. of Galveston, Dr. Willard P. Johnson of Seattle, and Morris D. Johnson of Austin; a daughter, Mrs. Rendon Griffin, Austin; three brothers, W. A. Johnson, Thalia; B. L. Johnson, Rosenberg, and T. L. Johnson, Fort Worth.

DR. H. B. TANDY

Dr. Hugh B. Tandy, Ozona physician, died November 14, 1960, of coronary artery disease at his home in Ozona.

He was born October 18, 1895, at Weatherford, the son of Charles Mills Tandy and Lula Mary (Rigney) Tandy. Following his preliminary education at Abilene, Dr. Tandy was awarded the bachelor of science degree from the University of Texas at Austin in 1918 and the medical degree from the University of Texas Medical Branch at Galveston in 1920. He interned at City Hospital, Louisville, Ky., and was a resident at St. Vincent's Lying-In Hospital in New York City. His postgraduate work included training at the Chicago Lying-In Hospital and the New York Lying-In Hospital.

A general practitioner, he began his medical practice in 1921 at Abilene, from where he moved in 1933 to Ozona. As a major in the United States Army, he served in the European Theater of Operations from 1942 until 1946. In World War I, he had served in the medical corps at Fort Knox, Ky.

He was married to Miss Ona Fae Bland of Abilene on October 29, 1924, and the couple had four children.

Dr. Tandy was a member of the American Medical Association, the Texas Medical Association, the Taylor-Jones Counties Medical Society and the Tom Green-Eight Counties Medical Society (Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher), and the International Medical Assembly of Southwest Texas at San Antonio. A member of the Board of Stewards of the First Methodist Church at Ozona, he was president of the Ozona Rotary Club and belonged to the Ozona Country Club.

In recognition of his long service to his community, his picture had been placed in the new Crockett County Hospital. He had established the Ozona Hospital in 1933, and operated it one year before turning it over to Crockett County. At the time of his death, he was the senior staff member.

Survivors include his wife of Ozona; his mother, Mrs. C. M. Tandy of Abilene; one daughter, Mrs. J. C. Conde of Malibu, Calif.; three sons, Bland Tandy, Abilene, Kerry S. Tandy, Atlanta, Ga., and Mills Tandy, University of Texas student; and eight grandchildren.

DR. THOMAS BENTON FISHER

Dr. Thomas Benton Fisher, Dallas, an honorary member of Texas Medical Association, died November 21, 1960, of heart failure, following a lengthy illness.

Dr. Fisher was born to R. H. Fisher and Elizabeth (Ingles) Fisher, on March 5, 1871, in Dallas County. He attended Dallas County public schools, Dallas College, Vanderbilt University School of Medicine, Nashville, and Tulane University School of Medicine, New Orleans, graduating in 1896.

He interned at New Orleans during a yellow fever epidemic. Since then he had practiced in Dallas County, where he was city and county health officer in the late 1890's. Then, he had to visit and diagnose all cases of suspected smallpox. If a patient was found to have smallpox, Dr. Fisher took him to the "pest house," away from the population center. As city health officer, he was once sent to Laredo to help stamp out a smallpox epidemic.

Besides honorary membership in Dallas County Medical Society and Texas Medical Association, Dr. Fisher was a member of the American Medical Association, a former medical director of the Southern Life Insurance Company and of the United Fidelity Insurance Company. He was also a member of the First Baptist Church of Dallas.

Dr. Fisher had been appointed to the Texas State Board of Health by Governor William P. Hobby in 1919 and by Governor Pat M. Neff in 1921.

Survivors include two daughters, Mrs. Lacey Goostree of Phoenix and Mrs. Doris Fisher Blean of Camarillo, Calif.; a brother, Homer B. Fisher of Dallas; two sisters, Mrs. Kenneth Foree and Mrs. W. H. Wynn of Dallas.

DR. THOMAS BENTON FISHER

★ Coming Meetings

American Medical Association. Dr. E. Vincent Askey, Los Angeles, Pres.; Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Exec. Vice-Pres.

Texas Medical Association, Galveston, April 23-25, 1961. Dr. May Owen, Fort Worth, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Exec. Secy.

Current Meetings

FEBRUARY

Texas Proctologic Society, Houston, February, 1961. Dr. J. Wade Harris, Houston, Pres.; Dr. H. Gray Carter, 915 St. Joseph St., Dallas, Secy.

MARCH

American College of Allergists, Dallas, March 12-17, 1961. Dr. Giles A. Koelsche, Rochester, Minn., Pres.; Mr. Eloi Bauers, 2160 Rand Tower, Minneapolis, Executive Vice-Pres.

South Central Association of Blood Banks, New Orleans, March 3-4, 1961. Dr. Kenneth M. Heard, Jackson, Miss., Pres.; L. Ruth Guy, Ph.D., Room 1101, Stoneleigh Hotel, Dallas, Secy.

Texas Public Health Association, Fort Worth, March 5-8, 1961. Mrs. Maggie Belle Davis, Corpus Christi, Pres.; Mr. Joseph N. Murphy, Jr., Box 4012, Austin 51, Executive Secy.

Texas Tuberculosis Association, Corpus Christi, March 16-18, 1961. Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Second District Society, Snyder, March 18, 1961. Dr. M. J. Loring, Midland, Pres.; W. S. Parks, Jr., 2009 W. Wall, Midland, Secy.

Dallas Southern Clinical Society Conference, Dallas, March 20-22, 1961. Dr. Frank H. Kidd, Jr., Dallas, Pres.; Millard J. Heath, 433 Medical Arts Bldg., Dallas 1, Executive Officer.

New Orleans Graduate Medical Assembly, New Orleans, March 6-9, 1961. Dr. Maurice E. St. Martin, New Orleans, Pres.; Mrs. Irma B. Sherwood, 430 Tulane Ave., New Orleans 12, Executive Secy.

National and Regional

American Academy of Allergy. Dr. Bram Rose, Montreal, Canada, Pres.; Dr. Joseph Noah, 100 N. Euclid Ave., St. Louis 8, Mo., Secy.

American Academy of Dermatology and Syphilology, Chicago, December 2-7, 1961. Dr. Wiley M. Sams, Miami, Pres.; Dr. Robert R. Kierland, Mayo Clinic, Rochester, Minn., Secy.

American Academy of General Practice, Miami, April 17-20, 1961. Dr. John G. Walsh, Sacramento, Calif., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Association of Obstetricians and Gynecologists. Dr. Robert A. Ross, Chapel Hill, N. C., Pres.; Dr. Clyde L. Randall, 216 Summer St., Buffalo 22, Secy.

American Academy of Pediatrics, Washington, D C., April 10-12, 1961. Dr. George M. Wheatly, New York, N.Y., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Executive Director.

American Academy of Ophthalmology and Otolaryngology. Dr. Dohrman K. Pischel, 940 Post St., San Francisco, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester Minn., Secy.

American Association for Maternal and Infant Health. Dr. M. Edward Davis, Chicago, Pres.; Mrs. Patricia Dorr, 116 S. Michigan Ave., Chicago 3, Executive Director.

American Association for Thoracic Surgery, Philadelphia, April 24-26, 1961. Dr. John H. Gibbon, Jr., Philadelphia, Pres.; Dr. Hiram T. Langston, 7730 Corondelet Ave., St. Louis 5, Secy.

American Association of Genito-Urinary Surgeons. Dr. Reed M. Nesbitt, Ann Arbor, Mich., Pres.; Dr. W. J. Engel, 2020 E. 93rd St., Cleveland 6, Secy.

American Association of Plastic Surgeons, May 17, 1961. Dr. Herbert Conway, New York City, Pres.; Dr. Thomas D. Cronin, 6615 Travis St., Houston 25, Secy.

American Cancer Society. Dr. Warren H. Cole, Chicago, Pres.; Mr. Granville Whitelesey, 521 West 57th St., New York 19, Secy.

American College of Chest Physicians, New York City, June 22-26, 1961. Dr. M. Jay Flipse, 550 Brickell, Miami, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Director.

American College of Gastroenterology, Cleveland, Ohio, Oct. 22-25, 1961. Dr. Henry Baker, Boston, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Obstetricians and Gynecologists. Dr. John I. Brewer, Chicago, Pres.; Mr. Donald F. Richardson, P. O. Box 749, Chicago 90, Executive Secy.

American College of Physicians, Miami Beach, May 8-12, 1961. Dr. Chester S. Keefer, Boston, Pres.; Dr. E. C. Rosenow, Jr., 4200 Pine St., Philadelphia 4, Executive Director.

American College of Radiology. Dr. Earl E. Barth, Chicago, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American Congress of Physical Medicine and Rehabilitation. Dr. F. J. Kottke, Minneapolis, Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago 2, Executive Secy.

American College of Surgeons. Dr. Owen H. Wangensteen, Minneapolis, Pres.; Dr. William E. Adams, 950 E. 59th St., Chicago, Secy.

American Dermatological Association. Dr. Marion B. Sulzberger, New York, Pres.; Dr. Wiley M. Sams, 308 Ingraham Bldg., Miami 32, Secy.

American Gastroenterological Association, Chicago, May 25-27, 1961. Dr. Hugh Butt, Rochester, Minn., Pres.; Dr. Wade Volwiler, Dept. of Medicine, University of Washington, Seattle 5, Secy.

American Gynecological Society. Dr. Karl H. Martzloff, Portland, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd. N.W., Washington 7, D.C., Secy.

American Heart Association, Miami Beach, Fla., Oct. 20-24, 1961. Dr. A. Carlton Ernstene, Cleveland, Pres.; Mr. William F. McGlone, 44 E. 23rd, New York 10, Secy.

American Hospital Association. Dr. Russell A. Nelson, Baltimore, Md., Pres.; Dr. Edwin L. Crosby, 18 E. Division Street, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, Lake Placid Club, May 23-25, 1960. Dr. Fletcher D. Woodward, Charlottesville, Va., Pres.; Dr. C. S. Nash, 708 Medical Arts Bldg., Rochester, N. Y., Secy.

American Neurological Association, Atlantic City, June 12-14, 1961. Dr. H. G. Wolff, New York City, Pres.; Dr. M. D. Yahr, 710 W. 16th St., New York 32, Secy.

American Ophthalmological Society, Hot Springs, Va., May 17-19, 1961. Dr. Edwin B. Dunphy, Boston, Pres.; Dr. Joseph A. C. Wadsworth, 108 E. 68th, New York 21, Secy.

American Orthopaedic Association, Yosemite National Park, May 22-25, 1961. Dr. Edwin F. Cave, Boston, Pres.; Dr. Lee Ramsay Straub, 535 E. 70th St., New York 21, Secy.

American Pediatric Society, Atlantic City, May 2-5, 1961. Dr. L. Emmett Holt, New York City, Pres.; Dr. Conrad M. Riley, Denver General Hospital, Denver 4, Secy.

American Proctologic Society. Dr. H. R. Reichman, Salt Lake City, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, Chicago, May 7-12, 1961. Dr. Robert H. Felix, Bethesda, Md., Pres.; Austin M. Davies, 1270 Avenue of the Americas, New York 20, Exec. Assistant.

American Public Health Association, Detroit, Nov. 13-17, 1961. Miss Marion W. Sheahan, New York 19, Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 22-27, 1961. Dr. J. Earl Remlinger, Jr., Wilmette, Ill., Pres.; Dr. Robert L. Patterson, 612 Bershire Drive, Pittsburgh 15, Secy.

American Society of Clinical Pathologists. Dr. John J. Clemmer, Albany, Pres.; Mr. Claude E. Wells, 445 Lake Shore Drive, Chicago 11, Executive Secy.

American Surgical Association, White Sulphur Springs, W. Va., April 3-6, 1960. Dr. Warren H. Cole, Chicago, Pres.; Dr. William Altemeier, Cincinnati General Hospital, Cincinnati 29, Secy.

American Urological Association, Los Angeles, May 22-25, 1961. Dr. John E. Heslin, Albany, N. Y., Pres.; Mr. William P. Didusch, 1120 N. Charles St., Baltimore 1, Executive Secy.

Association of American Physicians and Surgeons, Inc., Grove Park Inn, Asheville, N. C., Oct. 12-14, 1961. Dr. R. J. Moorhead, Yazoo City, Miss., Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Director.

International College of Surgeons, U. S. Chapter. Dr. Henry Meyerding, Rochester, Minn., Pres.; Dr. Ross T. McIntire, 1516 Lake Shore Dr., Chicago, Executive Director.

National Tuberculosis Association, Cincinnati, Ohio, May 21-26, 1961. Mr. Herbert C. De Young, Chicago, Pres.; Judge Herman Dehnke, 213 Main, Harrisville, Mich., Secy.

Radiological Society of North America, Chicago, Nov. 26-Dec. 1, 1961. Dr. H. Milton Berg, Bismarck, N. D., Pres.; Dr. Dwight V. Needham, 713 E. Genesee St., Syracuse 2, N. Y., Secy.

Southern Medical Association, Dallas, Nov. 6-9, 1961. Dr. Lee F. Turlington, Birmingham, Ala., Pres.; Mr. Robert F. Butts, 2601 Highland Ave., Birmingham 5, Ala., Executive Secy.

Southern Psychiatric Association. Dr. David A. Wilson, Charlottesville, Va., Pres.; Dr. Richard Proctor, Winston-Salem, N. C., Secy.

Southern Surgical Association, Hot Springs, Va., Dec. 5-7, 1961. Dr. Joseph M. Donald, Birmingham, Ala., Pres.; Dr. George D. Lilly, 333 Ingraham Bldg., Miami 32, Secy.

Southwest Allergy Forum, Padre Island, April 9-11, 1961. Dr. S. H. Jaros, Harlingen, Pres.; Dr. H. E. Hawkins, 105 W. Elizabeth, Brownsville, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 24, 1961. Dr. Robb Rutledge, Fort Worth, Chm.; Mrs. Ira Frances Ball, Westchester House, Fort Worth, Secy.

Southwestern Medical Association, Las Vegas, Oct. 19-21, 1961. Dr. Sherwood Burr, Tuscon, Pres.; Dr. Merle Thomas, 1501 Arizona Building, El Paso, Secy.

Southwestern Society of Nuclear Medicine, Oklahoma City, April 8-9, 1961. Dr. Peter E. Russo, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 2711 Oak Lawn Avenue, Dallas, Secy.

Southwestern Surgical Congress, St. Louis, April 10-13, 1961. Dr. Howard D. Cogswell, Tucson, Ariz., Pres.; Mary O'Leary, 813 Medical Arts Bldg., Oklahoma City, Exec. Secy.

Tri-State Medical Assembly. Dr. R. B. Langford, Shreveport, Pres.; Dr. J. W. Wilson, Jr., 940 Margaret Place, Shreveport, Secy.

United States-Mexico Border Public Health Association, San Diego, June 25-29, 1961. Dr. Adán Mercado Cerda, Tamaulipas, Mexico, Pres.; Dr. Ulpiano Blanco, El Paso, Secy.

State

Texas Academy of General Practice, Houston, Oct. 15-18, 1961. Dr. Jack M. Partain, San Antonio, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, Dec. 2-3, 1961. Dr. David Carter, Jr., Dallas, Pres.; Dr. S. C. Arnett, Jr., 2609 19th St., Lubbock, Secy.

Texas Air-Medics Association, Galveston, April 22-25, 1961. Dr. C. D. Henry, San Antonio, Pres.; Dr. C. F. Miller, Box 1338, Waco, Secy.

Texas Association for Mental Health, Galveston, 1961. Mr. William R. Ransone, Dallas, Pres.; Mrs. Lawrence Marcus, 3525 Arrowhead Drive, Dallas, Secy.

Texas Association of Obstetricians and Gynecologists. Dr. Oran V. Prejean, Dallas, Pres.; Dr. Hugh W. Savage, 815 Fifth Ave., Fort Worth, Secy.

Texas Association of Public Health Physicians, Galveston, April 22-25, 1961. Dr. L. P. Walter, Austin, Pres.; Dr. W. V. Bradshaw, Jr., 1800 University Drive, Fort Worth, Secy.

Texas Club of Internists. Dr. W. W. Bondurant, Jr., San Antonio. Pres.; Dr. T. Haynes Harvill, Medical Arts Building, Dallas 1. Secy.

Texas Chapter, American Academy of Pediatrics, Galveston, April 22-25, 1961. Dr. J. T. Bennett, El Paso, Pres.; Dr. W. W. Kelton, Jr., 108 West 30th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Galveston, April 22-25, 1961. Dr. Hiram M. Anderson, San Angelo, Pres.; Dr. Milton V. Davis, 3707 Gaston Avenue, Dallas, Secy.-Treas.

Texas Dermatological Society, Galveston, April 22-25, 1961. Dr. M. W. Harrison, Houston, Pres.; Dr. D. Shelton Blair, 1609 Medical Arts Building, Dallas, Secy.-Treas.

Texas Diabetes Association, Galveston, April 22-25, 1961. Dr. James A. Greene, Houston, Pres.; Dr. John W. Chriss, 2436 Morgan Street, Corpus Christi, Secy.-Treas.

Texas Division, American Cancer Society. Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Heart Association. Dr. Robert E. Leslie, El Campo, Pres.; Mr. Ernest T. Guy, 404 Jesse H. Jones Library Building, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 15-17, 1961. Dr. F. R. Higginbotham, San Antonio, Pres.; Mr. O. Ray Hurst, 1905 N. Lamar, Austin, Executive Director.

Texas Industrial Medical Association, Galveston, April 22-25, 1961. Dr. Noble B. Daniel, Texarkana, Pres.; Dr. J. G. Burdick, Pasadena, Secy.

Texas Neuropsychiatric Association, Galveston, April 22-25, 1961. Dr. Clarence S. Hoekstra, Dallas, Pres.; Dr. E. Ivan Bruce, Jr., Galveston, Secy.-Treas.

Texas Ophthalmological Association, Galveston, April 22-25, 1961. Dr. Otto Lippmann, Austin, Pres.; Dr. James H. Scruggs, Waco, Secy.

Texas Orthopedic Association, Galveston, April 22-25, 1961. Dr. Ike S. McReynolds, Houston, Pres.; Dr. Margaret Watkins, Dallas, Secy.-Treas.

Texas Otolaryngological Association, Galveston, April 22-25, 1961. Dr. August J. Streit, Amarillo, Pres.; Dr. Louis E. Adin, Jr., Dallas, Secy.

Texas Pediatric Society, Harlingen, Sept. 22-23, 1961. Dr. James N. Walker, Ft. Worth, Pres.; Dr. C. E. Gilmore, 811 Bonham, Paris, Secy.

Texas Physical Medicine and Rehabilitation Society, Galveston, April 22-25, 1961. Dr. Edward M. Krusen, Dallas, Pres.; Dr. Oscar Selke, Medical Professional Building, Houston, Secy.

Texas Radiological Society. Dr. Delphin von Briesen, El Paso, Pres.; Dr. R. P. O'Bannon, 1216 Pennsylvania, Fort Worth, Secy.

Texas Rheumatism Association, Houston, Dec. 1, 1961. Dr. Horace Wolf, Amarillo, Pres.; Dr. James Kemper, 6655 Travis St., Houston, Secy.

Texas Society of Anesthesiologists, Galveston, April 22-25, 1961. Dr. Randle J. Brady, Houston, Pres.; Dr. Eugene L. Slataper, Houston, Secy.

Texas Society of Athletic Team Physicians, Galveston, April 22-25, 1961. Dr. W. S. Horn, Jr., Fort Worth, Pres.; Dr. Louis Levy, Fort Worth, Secy.-Treas.

Texas Society of Gastroenterologists and Proctologists, Galveston, April 22-25, 1961. Dr. H. Gray Carter, Dallas, Pres.; Dr. A. C. Broders, Jr., Temple, Secy.-Treas.

Texas Society of Pathologists, Inc., Galveston, April 22-25, 1961. Dr. O. J. Wollenman, Jr., Fort Worth, Pres.; Dr. Vernie A. Stembridge, Dallas, Secy.-Treas.

Texas Society of Plastic Surgeons, Galveston, April 22-25, 1961. Dr. J. B. Patterson, Fort Worth, Pres.; Dr. Raymond O. Brauer, Houston, Secy.-Treas.

Texas Society on Aging, San Antonio, Dec. 1-2, 1961. Dr. H. J. Friedsam, Denton, Pres.; Mrs. William B. Ruggles, 3701 Stratford, Dallas, Secy.-Treas.

Texas Society of Ophthalmology and Otolaryngology. Dr. D. Gatlin Mitchell, Fort Worth, Pres.; Dr. Oliver Suehs, 14 Medical Arts Square, Austin, Secy.

Texas Surgical Society, Dallas, April 2-4, 1961. Dr. Robert L. Sewell, Fort Worth, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Galveston, April 22-25, 1961. Dr. Edward R. Rowe, Galveston, Pres.; Dr. John C. Long, Plainview, Secy.-Treas.

Texas Urological Society. Dr. Joseph Mitchell, Dallas, Pres.; Dr. O. C. Berg, 1300 8th St., Wichita Falls, Secy.

District

First District Society. Dr. Gordon L. Black, 1501 Arizona St., El Paso, Secy.

Third District Society, Amarillo, April 15, 1961. Dr. James L. Johnson, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society, San Angelo, May, 1961. Dr. J. G. Bodenhamer, Mason, Pres.; Dr. M. D. Knight, 234 W. Beauregard, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 8-9, 1961. Dr. John W. Chriss, Pres.; Dr. James Gabbard, 1001 Louisiana, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13th, Austin, Secy.

Eighth District Society, Corpus Christi. Dr. M. Warren Hardwick, Angleton, Pres.; Dr. J. L. Coleman, Box 3346, Victoria, Secy.

Ninth District Society, Bellville, Spring, 1961. Dr. Irving M. Watson, Jr., Conroe; Dr. William E. Sharp, 721 E. Texas, Baytown, Secy.

Tenth District Society. Dr. Bedford Mace, Beaumont, Pres.; Dr. Irving M. Richman, 3280 Fannin St., Beaumont, Secy.

Eleventh District Society, Jacksonville. Dr. Marlin T. Braswell, Henderson, Pres.; Dr. Floyd Verheyden, 813 John St., Jacksonville, Secy.

Twelfth District Society, Temple, January 13, 1962. Dr. Woodrow M. Avent, Waco, Pres.; Dr. John Dunlap, 2320 Columbus Ave., Waco, Secy.

Thirteenth District Society, Fort Worth, Fall, 1960. Dr. William B. Allensworth, Mineral Wells, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. H. O. Padgett, Marshall, Pres.; Dr. James S. Leeves, Naples, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison. Dr. Andrew Jensen, Denison, Chm.

International Medical Assembly of Southwest Texas. Dr. Max E. Johnson, San Antonio, Pres.; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. Frank J. Lee, 1300 8th, Wichita Falls, Chm.

Oklahoma City Clinical Conference, Oct. 23-25, 1961. Dr. Vernon D. Cushing, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 10-12, 1961. Dr. C. Forrest Jorns, Houston, Pres.; Mrs. W. H. Dahme, 412 Jesse H. Jones Library Bldg., Houston 25, Exec. Secy.

Private Clinics and Hospitals, Houston, Dec. 2-3, 1961. Dr. Van Goodall, Clifton, Pres.; Mr. B. J. Warren, Deaton Hospital, Galena Park, Secy.

Board Examinations

Texas State Board of Examiners in Basic Sciences, Austin, Houston, Galveston and Dallas, April 14-15, 1961. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Anderson, Chief Clerk, State Office Bldg., 201 E. 14th St., Austin.

Texas State Board of Medical Examiners, Fort Worth, June 12-14, 1961. Dr. M. H. Crabb, Fort Worth, Secy.; Mrs. Carolyn H. Millard, 1714 Medical Arts Bldg., Fort Worth, Assistant Secy.